

LEANDER 'S' KEYSER











13K44 Birds IN BIRD LAND

BY

LEANDER S. KEYSER

Hast thou named all the birds without a gun?

Loved the wood-rose, and left it on its stalk?

RALPH WALDO EMERSON: Forbearance

Teach me half the gladness

That thy brain must know,

Such harmonious madness

From my lips would flow

The world should listen then, as I am listening now!

PERCY B. SHELLEY: To a Skylark

FOURTH EDITION



CHICAGO

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NOTE.

The articles comprising this volume having been previously published in various periodicals of the country, I would desire to tender my grateful acknowledgments to the several publishers and editors for their uniform courtesy in permitting me to reprint the papers. My observations on birds have been made, except when otherwise indicated, in various haunts in and about Springfield, Ohio, — a region well adapted for ornithological research or pastime.

L. S. K.

August, 1894.

Bushah.



MUSSUM JAKOITAK)

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This way would I also sing,

My dear little hillside neighbor!

A tender carol of peace to bring

To the sunburnt fields of labor

Is better than making a loud ado;

Trill on, amid clover and yarrow!

There's a heart-beat echoing for you,

And blessing you, blithe little sparrow!

Lucy Larcom.

IN BIRD LAND.

I.

WAYSIDE RAMBLES.

OOKING out of my study window one fair spring morning, I noticed a friend—a professional man — walking along the street, evidently taking his "constitutional." Having reached the end of the brick pavement, he paused, glanced around a moment undecidedly, and then, instead of walking out into the beckoning fields and woods, turned down another street which led into a thickly populated part of the city. Surely, I mused, we are not all cast in the same mould. While he carefully avoided going beyond the suburbs and the beaten paths, as if afraid he might soil his polished shoes, I should have plunged boldly into the country, "across lots," to find some sequestered nook or grass-grown by-way, "far from human neighborhood," to hold undisturbed converse with Nature. My friend's conduct, however, did not put me in a critical mood, but rather stirred some grateful reflections on the wise adaptation of all things in

the world of being. How fortunate that men are so variously constituted! If some did not naturally choose the bustle and stir and excitement of the city, where would be our philanthropists, our Howards and Peabodys and Dodges? On the other hand, if others did not voluntarily seek quiet and solitude in Nature's unfrequented haunts, the world would never have been blessed with a Wordsworth, an Emerson, or a Lowell; and in that case, for some of us at least, life would have been bare and arid.

It is true, we cannot accept Pope's dictum, "Whatever is, is right." We know that many things that are, are wrong; but doubtless more things in this paradoxical old world are right than moralists sometimes suppose. To the genuine lover of Nature, and especially to the lover of her unbeaten pathways, the ringing lines of Emerson come home with thrilling power:—

"If I could put my woods in song
And tell what's there enjoyed,
All men would to my gardens throng,
And leave the cities void."

Yet I doubt if any spot in Nature's domain could be made so attractive as to overcome most persons' natural love of human association. Mayhap even if this could be done, it would not be desirable. Should all men hie to the woods and leave the cities void, it would spoil both the woods and the cities. The charm of the woods is their quiet, their solitude; the enchantment of the city, its

thronging life and activity. While I may be lone-some in a crowd, my neighbor is almost sure to feel lonesome in the marsh or the deep ravine. If all men loved Nature with a passion that could not be controlled, much work would be left undone that is indispensable to human life and happiness. I am glad, therefore, that there are many birds of many kinds; glad, too, that there are many men of many minds. The apostle does well to remind his brethren in the church that there are "diversities of gifts" and "diversities of operations," even if all do spring from "the same Spirit."

Albeit, as for me, give me

"A secret nook in a pleasant land, Whose groves the frolic fairies planned."

Emerson voices my own feeling when he sings: —

"A woodland walk,
A quest of river-grapes, a mocking thrush,
A wild rose, or rock-loving columbine,
Salve my worst wounds;"

for,

"What friend to friend cannot convey, Shall the dumb bird instructed say."

And it is true that a wayside ramble will often do, by way of self-revelation and conviction, what no human voice of chastisement can accomplish. Mr. Howells says, in one of his most trenchant analytical novels: "If you're not in first-rate spiritual condition, you're apt to get floored if you undertake to commune with Nature." There are times when the very

immaculateness of the sky, or the purity of a wood-land flower, rebukes one, gives one a keen sense of one's sins, and makes one long for absolution; or when the pensive moaning of the wind through the gray, branchless trees on a winter's day forces on the mind a prevision of a judgment about to be visited upon one's misdoings. Yet this is seldom my own experience while idling in out-of-the-way places. Usually I feel soothed and comforted, or, at most, a sort of glad melancholy steals over me, which is as enchanting as a magician's spell; while I often win exhilaration from the whispering breezes, as if they carried a tonic on their pulsing wings.

On the spring morning on which my friend so studiously avoided Nature's by-paths, my stint of labor for the day was soon despatched, and then, flinging my lunch-bag over my shoulders, I hurried across the fields, anxious to put a comfortable distance between myself and bothering human tenements. By noon I had reached a green hollow at the border of a woodland, where Nature, to a large extent at least, has had her own sweet way. Here, on the grassy bank of a rivulet, I sat down to eat my luncheon. The spring near by filled my cup with ale that sparkles, but never burns; that quenches thirst, but never creates it. Not a human habitation was in sight; nothing but the tinkling brook, the sloping hills, the quiet woods, and the overarching sky. The haunt was not without music. The far-away cadences of the bush-sparrows on the hillside filled the place like melodious sunshine. A

short distance down the hollow a song-sparrow thrummed his harp, while a cooing dove lent her dreamy threnody to the wayside trio. Although engaged in the prosaic act of eating my luncheon, I breathed in an atmosphere of poetry and romance, and half expected a company of water-witches and dryads to leap upon the greensward before me and dance to the music of bird and brook. A pagan I am not, — at least, such is my hope; but moods subjunctive sometimes seize me when I do not blame the Greeks — aye, rather, when I praise them — for peopling the woods with Pan and his retinue; for I feel the influence of a strange, mystical, and more than impersonal presence.

Yes, one's dreams sometimes take on a speculative cast, even on a day that seems to be "the bridal of the earth and sky." In this unfrequented spot the birds sing their sweetest carols, be there a human ear to hear or not. Do they sing merely for their own delectation, these little creatures of a day? Is there not far too much sweetness wasted on the desert air? Would there not be more purpose in Nature could these dulcet strains be treasured in some way, so that they might be poured into man's appreciative ear? Why has Nature made no phonographs? Wherefore all this waste of ointment? Does Nature encourage the habits of the spendthrift? I recall a summer day when I strolled along a deep, lonely ravine. It was at least a mile to the nearest human dwelling. Suddenly a clear, melodious trill from a song-sparrow's lusty throat

rippled through the stillness, making my pulses flutter. Here, doubtless, the little Arion had sung his roundels all summer long, and perhaps I had been the only person who had heard him, and then I had caught only a few tantalizing strains—simply enough to give a taste for more. Why was the peerless triller apparently burying his talents in this solitary haunt?

It may be true of bird song, as of the recluse flower, that "beauty is its own excuse for being;" but I am not ashamed to record my confession of faith, my creed, on this matter; not my dreamy cogitations with ifs and mayhaps. There is a divine ear which catches every strain of wayside melody, and appreciates it at its true value. Thus, no beauty or sweetness is ever lost, no bird or flower is really an anchorite. A bird may flit away in alarm at the approach of a human intruder, and may not lisp a note until he is well out of the haunt; but the same songster will unconsciously pour his dithyrambs all summer long into the ear of God. Nature was not made for man alone; it was also made for its Creator. Never has the brown thrasher sung with such enchanting vigor and abandon as he did the other day at the corner of the woods when he thought no human auditor within ear-shot. He was singing for God, albeit unconsciously.

It is high time to get back to my waysiding, if I may coin a word. You must go to an out-of-the-way resort, far from the din of loom and factory, to feel the quaint, delicate fancy of Sidney Lanier's lines,—

"Robins and mocking-birds that all day long
Athwart straight sunshine weave cross-threads of song,
Shuttles of music."

The wayside rambler often is witness of delightful bird-pranks that must escape other eyes. On a bright day in February I strolled to the hollow to which I have already referred. The sun was melting the ice-mantle from the brook, and causing the snow to pour in runlets down the banks. In a broad, shallow curve of the stream the tree-sparrows and song-sparrows were taking a bath. I watched them for a long time. Some of them would remain in the ice-cold water for from three to five minutes, fluttering their wings and tails in perfect glee, and sending the pearl-drops and spray glimmering into the air. Their ablutions done, they would fly up to the saplings near by, and carefully preen and dry their moistened robes.

It was in the depth of the woods that my saucy black-cap, the titmouse, clambered straight up the vertical bole of an oak sapling, as if he had learned the trick from the brown creeper or the white-breasted nuthatch. No less interesting was the conduct of the downy woodpecker, that little drummajor of the woods. He is the tilter par excellence of the woodpecker family. He flings himself in the most reckless manner from trunk to branch, and from branch to twig, often alighting back-downward on the slenderest stems. Shall I describe one of his odd tricks? I had often seen him clinging to the slender withes of the willows at the border of

the swamp, and had wondered how he could hold himself with his claws to so meagre a support. was a problem. How much I longed to solve it! However, for a long time the bird so completely baffled me that I felt like another Tantalus. One winter day, however, he happened to be quite near the ground as I stood beneath the willows, so that I could see just how he accomplished the mysterious feat. Imagine my surprise! He did not cling to the withes with his claws at all, as he clings to a tree-trunk or a large bough, but grasped the slender perches with his feet, precisely as if they were hands, flinging his long toes, like fingers, clear around the stems, one foot above the other. In ascending, he would go foot over foot; in descending, he would simply loosen his hold slightly and slip down. Isaac Newton may have made more important discoveries, but he did not feel prouder or happier when he solved the binomial theorem than did I when my little avian problem was solved. I am not aware that any one else has ever described this performance, and am strongly tempted to announce it as an original discovery. Yet a certain writer once declared, patronizingly, that there are some writers — himself excepted, of course — on natural history themes who proclaim as original discoveries many facts that are perfectly familiar to every tyro in science. Spite of the scornful reflection, however, it is my modest opinion that there are very few observers who have seen a woodpecker ascending a willow-withe foot over foot.

Many, many a cunning bird prank would have been missed had I kept, like the majority of pedestrians, to the beaten track. There, for example, is that odd little genius in mottled robes, the brown creeper, who has performed a sufficient number of quaint gambols to repay me for all the time and effort expended in pursuing my wayside rambles. He is always sui generis, apparently priding himself on his eccentricities, like some people you may know. A genuine arboreal creeper, he almost invariably coasts up hill. Unlike his congeners, the nuthatch and the creeping warbler, he never goes head-downward. Dear me, no! Whether it is because it makes him light-headed, or he regards it as bad form, I am unable to say. He does not even hitch down backward after the manner of the woodpeckers, but marches up, up, up, until he thinks it time to descend, which he does by taking to wing, bounding around in an arc as if he were an animated rubber ball. You may almost imagine him saying: "Pah! such vulgar sport as creeping head-downward may be well enough for mere plebeians like the nuthatches and the striped creepers, but it is quite beneath the caste of a patrician like myself! Tseem! tseem!" At rare intervals he will slip down sidewise for a short distance, in a slightly oblique direction, especially when he comes to a fork of the branches.

However, he does not think it beneath his dignity to take a promenade on the under side of a horizontal bough. One day as I watched him doing this, he reached a point where the limb made an obtuse angle by bending obliquely downward. Now what would he do? Would he really hitch down that branch head-foremost, only for once? By no means. Catch him committing such a breach of creeper decorum! He suddenly spread his wings and hurled himself to the lower end of that oblique section of the branch, and then ambled up to the angle in regular orthodox fashion. You will never find him doing anything to give employment to the heresy hunters!

Have any of my fellow-observers ever seen this merry-andrew convert himself into a whirligig? I once witnessed this droll performance, which seemed almost like a vagary. A creeper was clinging to a large oak-tree near the base, when he took it into his crazy little pate, for what earthly—or unearthly—reason I know not, to wheel around like a top several

¹ Some months after the foregoing had appeared in the columns of a popular journal I had occasion to modify one assertion. For many years I had been studying the creeper, and had never seen him descend a tree or bough head-first until one autumn day while loitering in the woods. A creeper was hitching up the stem of a sapling in his characteristic manner; as I drew near, he seemed to catch a glimpse of a tidbit in his rear, near the sapling's root. In his extreme haste to secure it before I drove him away, he wheeled around, scuttled down over the bark head-foremost a distance of perhaps two feet, picked up his morsel, and then dashed out of sight, as if ashamed of his breach of creeper etiquette, probably to eat humble pie at his leisure. That was in the autumn of 1892. Since then no creeper, to my knowledge, has been guilty of a similar offence against the convenances.

times in quick succession. He rested a moment, and then repeated the comedy.

On another occasion a creeper was preening his ruffled feathers, having evidently just taken a bath; and how do you suppose he went about it? In quite a characteristic fashion, you may rest assured. Instead of sitting crosswise on a perch, as most birds would have done, he clung to the vertical bole of a large oak-tree, holding himself firmly against the shaggy bark, and daintily straightening out every feather from his breast to his flexible tail. Growing tired of this position — apparently so, at least — he shuffled up to a fork made by the trunk and a large limb, where he found a more comfortable slanting perch on which to complete his toilet. Once, afterward, I saw a creeper arranging his plumes in the same way.

But the quaintest exploit of this bird still remains to be described. One autumn day, while rambling along the foot of a range of steep cliffs, I caught sight of one of these birds darting from a tree toward the perpendicular wall of rock. For a few moments I lost him, but followed post-haste, muttering to myself, "What if I should find the little clown climbing up the face of the cliff! That would be a performance worth describing to my bird-loving friends, wouldn't it?" (Surely a monomaniac may talk aloud to himself.) I could scarcely believe my eyes, for the next moment my happy presentiment was realized; there was the creeper scaling the vertical face of the cliff, with as much ease and

aplomb, apparently, as a fly creeping up the smooth surface of a window-pane! Then he flew ahead a short distance, and began mounting the cliff where its face was quite smooth and hard. Presently he encountered a bulging protuberance, and tried to creep along the oblique under side of it; but that feat proved to be beyond his skill, agile as he was, and so he abandoned the attempt, and swung away to another part of the vertical wall. I have never seen, in any of the manuals which I have consulted, a description of a similar performance; and if any of my readers have ever witnessed such a "coruscation" of creeper genius, I should be glad to hear from them.

In one's out-of-the-way saunterings, one dashes up against many a faunal problem that defies, even while it challenges, solution. On a cold day of early winter I was strolling along the bare, windswept banks of a river, keeping my eyes alert, as usual, for bird curios. In the small bushes that fringed the bank were some cunningly placed nests. In the bottom of one of them lay many seeds of dogwood berries, with the kernels bored out, — the work, no doubt, of the crested tits. But there were no dogwood-trees within twenty-five rods of the place! Why had the birds carried the shells to this nest, and dropped them into it? This is all the more curious because it was not a tit's nest, but very likely a cat-bird's. One can only surmise that the tits had gathered these seeds in the fall, and stowed them away in the nest for winter use, and

then had eaten out the kernels when hunger drove them to it. That would be in perfect keeping with the habits of these thrifty little providers for the morrow.

During the winter of 1892-1893 a red-bellied woodpecker, often called the zebra-bird, took up his residence in my woodland. (I call it mine by a sort of usufruct, because I ramble through its pleasant archways or sit in its quiet boudoirs at all hours and in all seasons.) With the exception of several brief absences, for which I could not account, the woodpecker remained until the following spring, giving me some delightful surprises. It was the first winter he had shown the good grace to keep me company. Perhaps he was lazy; or he may have been a clumsy flier; or perchance he got separated from his fellows by accident, and so was left behind in the autumn when the southward pilgrimage began.

He was, by all odds, the handsomest woodpecker I had ever seen. His entire crown and hind-neck were brilliant crimson, which fairly shimmered like a flambeau when the sun peeped through a rift in the clouds and shone upon it; and then his back was beautifully mottled and striped with black and white, while his tail was bordered with a broad band of deep black. What a splendid picture he made, too, whenever he spread his wings and bolted from one tree to another! I wish an artist could have caught him on the wing, and transferred him to canvas. He performed a trick that was new to

me, and did it several times. He would dash to some twigs, balance before them a moment on the wing, pick a nit or a worm from a dead leaf-clump, and then swing back to his upright perch. Once he found a grain of corn in a pocket of the bark, placed there, perhaps, by a nuthatch; but he did not seem to care for johnny-cake, and so he dropped it back into the pocket. How cunningly he canted his head and peered into the crannies of the bark for grubs, calling, *Chack! chack!*

During the entire winter he uttered only this harsh, stirring note, half jocose, half spiteful; but, greatly to my surprise, when spring arrived, especially if the weather happened to be pleasant, he began to call, K-t-r-r! k-t-r-r! precisely like a red-headed woodpecker; indeed, at first I laid siege to every tree, looking in vain for a red-head come prematurely northward, until I discovered the trick of my winter intimate, the red-bellied woodchopper. Why it should have been so I cannot explain; but whenever a cold wave struck this latitude during the spring, he would invariably revert to his harsh Chack! chack! and then when the breezes grew balmy again, he would resume his other reveille, making the woods echo. I also discovered — it was a discovery to myself, at least that the red-bellied is a drummer, like most of his relatives; but not once did he thrum his merry ra-ta-ta before spring arrived, - another avian conundrum for the naturalist to beat his brains against.

But hold! I might go rambling on in this way forever, like Tennyson's brook, — or, possibly, like Ixion revolving on his wheel, — describing the odd pranks witnessed in my wayside rambles. It is high time, however, to call a halt; yet, after a brief breathing-space, these miscellanies will be resumed in the next chapter, which may, with some degree of propriety, be entitled "Bird Curios."

II.

BIRD CURIOS.

doubtless amassed many facts of intense interest—at all events, of intense interest to himself—which he has not been able to adjust to any systematic arrangement he may have made of his material. That is true of the incidents described in this chapter. It will, therefore, necessarily partake of the nature of bric-à-brac. If it were not so self-complimentary, I should dub it bird mosaic, and have done. The reader will perhaps be more disposed to trace a resemblance to an eccentric old woman's "crazy quilt;" and if he prefers the homelier and less poetical title, I shall not complain.

But even a bit of patchwork must be begun somewhere, and so I shall plunge at once *in medias* res.

The day was one of the fairest of early spring. How shall I describe it? No sky could have been bluer, no fields greener. The earth smiled under the favoritism of the radiant heavens in happy recognition. My steps were bent along the green banks of a winding creek in northern Indiana. Suddenly a loud, varied bird song fell on my ear

and brought me to a full stop. It swept down liltingly from a high, bushy bank some rods back from the stream, and at once proclaimed itself as the rhapsody of the cat-bird. Anxious to watch the brilliant vocalist in his singing attitudes, I proached the acclivity, and soon espied him in the midst of the dense copse, which was not yet covered with foliage. He redoubled his efforts when he saw an appreciative auditor standing near. Presently a quaint impulse seized his throbbing, music-filled bosom. He swung gracefully to the ground, picked up a fragment of newspaper, leaped up to his perch again, and then, holding the paper harp in his beak, resumed his song with more vigor than before. All the while his beady eyes sparkled with good-natured raillery, as if he expected me to laugh at his unique performance; and, of course, I was able to accommodate him without half an effort. An errant gust of wind suddenly wrenched the bit of paper from his bill and bore it to the ground. The minstrel darted after, and straightway recovered his elusive prize, flew up to his perch, and again roused the echoes of woodland and vale with his rollicking song, the paper harp imparting a peculiar resonance to his tones; while his air of banter seemed to challenge me to a musical contest. I laughingly declined in the interest of my own reputation.

He was one of the choicest minstrels of bird land I have ever heard, — barring the sex, a Jenny Lind or an Adelina Patti, — his voice being of excellent timbre, his tones pure and liquid, and his technical

execution almost perfect. Ever since that day I have been the avowed friend of the catbird, - in truth, his champion, ready at any moment, in season and out, to take up the glove in his defence against every assailant. Some very self-conscious human performers — people who themselves live in glass houses - have accused him of singing to be heard, making him out vain and ambitious. what if he does? Why do his human compeers sing or speak or write? Certainly not purely for their own delectation, but also, in part at least, to catch the appreciative ear and eye of the public, and win a bit of applause. "Let him that is without sin among you first cast a stone." He who scoffs at my plumbeous-hued choralist makes me his enemy, — not the choralist's, but the scoffer's. So let the latter beware!

I leave the cat-bird, however, to his own resources — he is well able to take care of himself — to tell what the birds were doing during a recent spring, which fought in a very desultory manner its battle with the north winds. Special attention is called to the laggard character of the season because a tardy spring is a sore ordeal to the student of bird life, postponing many of his most longed-for investigations. The spring to which I refer (1892) was provokingly slow in its approach, and yet it developed some traits of bird character that were interesting. For instance, the first week in April was a seducer, being quite bland, starting the buds on many trees, and putting the migrating fever into the veins of a

number of species of birds. But the snow-storms and fierce northern blasts that came later were very hard on both birds and buds. Many a chorus was sung during the pleasant weather, but on more than one day afterward the cheerful voices of the feathered choir were hushed, while the songsters themselves sought refuge from the storm in every available nook, where they sat shivering. One cannot always repress the interrogatory why Nature so frequently stirs hopes only to blast them; but it is not the business of the empirical observer to question her motives or her manners, — rather to study her as she is, without asking why.

Cold as April was, some birds were hardy enough to go to nest-building. Among these were the robins, whose blushing bosoms could be seen everywhere in grove and field. On the seventh of the month a robin was carrying grass fibres to a half-finished nest in the woodland near my house. A week later she was sitting on the nest, hugging her eggs close beneath her warm bosom, while the tempests howled mercilessly about her roofless homestead. It seemed to me, one cold morning after a snow-storm, that her body shivered as she sat there, and I feared more than once that she would freeze to death; but no such fatality befell her, and she resolutely kept her seat in her adobe cottage.

And this reminds me of a bird tragedy described to me by a professor in the college located in my town. He said that a number of years ago a robin built a nest in a tree not far from the site on which

some workmen were erecting a new college building. In May a very fierce snow-storm came. One day the workmen noticed a half-dozen robins darting about the nest on which the hatching bird sat, flying at her with sharp cries, striking her with their wings, and making use of various other devices to dislodge her from the nest. They seemed to realize that she was in peril of her life through long inactivity and exposure to the cold. But their efforts were unsuccessful: she would not leave her nest; her eggs or young must have her care at whatever cost. However, the poor bird paid dearly for her devotion. The next morning — the night had been very cold - the workmen found her dead upon the nest. My informant vouches for the truthfulness of the story, and says that he himself saw the faithful mother on the nest after she had been frozen stiff.

On the twentieth of April I saw another robin sitting close on her nest, which was built on a horizontal branch of a willow-tree, not more than eight feet from the ground. The raw east wind lifted the feathers on her back, as if determined to creep through her thick clothing to the sensitive skin. A few days earlier a blue jay was seen carrying lumber to her partly erected nursery in the crotch of an oak-tree. A pair of bluebirds, sighing out their sorrows and joys, began building in one of my bird-boxes during the pleasant early April weather; but when the cold spell came, they wisely suspended operations until the storms were overpast and they could proceed with safety. A killdeer

plover's nest was found by my farmer neighbor on the ninth of April. It was on the ground in an open field, with not so much as a spear of grass for protection.

That year the crow blackbirds arrived from the south in February, all bedecked in holiday attire, the rich purple of their necks scintillating in the sunshine. You have perhaps observed the droll antics of these birds as they sing their guttural O-gl-ee. It is amusing to see them fluff up their feathers, spread out their wings and tails, bend their heads forward and downward with a spasmodic movement, and then emit that queer, gurgling, half-musical note. It would seem that the little they sing requires a superhuman — more precisely, perhaps, a super-avian — effort, coming aqueously, one might almost say, from some deep fountain in their windpipes. These contortions do not invariably accompany their vocal performances, but certainly occur quite frequently. The red-wings also often behave in a like manner; and both species always spread out their tails like a fan when they sing, whether they fluff up their plumes and twist their necks or not.

Another bit of bird behavior gave me not a little surprise during the same spring. It started this query in my mind: Is the white-breasted nuthatch a sap-sucker? It has been proved by Mr. Burroughs and Mr. Frank Bolles, I think, that the yellow-bellied woodpecker is. But how about the frisky nuthatch, so versatile in ways and means? Here is

an incident. One day I saw a nuthatch thrusting his slender bill into a hole in the bark of a young hickory-tree. Nuthatches often hunt for grubs in that way, but something about this fellow's conduct prompted me to watch him closely for some minutes. He bent over the hole with a lingering movement, as if sipping something. Presently I slowly approached the tree, keeping my eye intent on the bird.

Of course, he flew away on my approach, but my eye was never taken from the spot to which he had been clinging. Being forced to climb the trunk of the tree a few feet, what discovery do you suppose awaited me? There was a small hole pierced through the bark from which the sap was flowing down the crannies, and into that fount the little wassailer had been thrusting his bill, with a sort of lingering motion, precisely as if he had been sipping the sweet liquor. The evidence was sufficient to convince me that he had been doing this very unorthodox thing. The real sap-suckers, no doubt, had dug the well, for there were a number of them in the woods, and the nuthatch had been stealing the nectar. Perhaps, however, I wrong him; he may have asked permission of the owner to drink from the saccharine fountain.

The next autumn I took occasion to pry into the affairs of my beloved intimates of the woods, and had more than one surprise. Some species of birds, like some other animals, lay by a supply of food for winter, proving that they do take some thought for

the morrow. So far as my observation goes, this provident care is displayed only by those birds that are winter residents in our more northern latitudes. I have never seen any of the vast company of migrants making such provision for the proverbial rainy day; and, indeed, it would be unnecessary. To them sufficient unto the day is the care as well as the evil thereof, and so they take their "daily bread" as they happen to find it.

Our winter residents, however, are more thrifty, as I have observed again and again. Here is an instance which once came under my eye. sauntering along the border of the woods one day in September, I noticed several nuthatches and blackcapped titmice busily gathering seeds from a clump of sunflower stalks, and flying with them to the trees near by. I found a seat and watched them for a long while. A nuthatch would dart over to a sunflower stalk, cry, Yak! yak! in his familiar way, as if talking affectionately to himself, deftly pick out a seed from its encasement, fly with it to the trunk of an oak-tree, and then thrust it into a crevice of the bark with his long slender beak. He would then hurry back for another seed, which he would treat in the same way.

The behavior of one of these little toilers was especially interesting. By mistake he pushed a seed into a cranny which seemed to be too deep for his purpose, and so he proceeded in his vigorous way to pry and chisel it out. He seemed to say to himself: "That would be too hard to dig out on a

cold winter day; I think I'd better get it out now." When he had secured it, he put it into another crevice, which also proved too deep; and so his dainty had to be recovered once more. The third attempt, however, proved a charm, for that time he found a little pocket just to his liking. To make very sure he did not eat the seed, I did not take my eye from him for a single moment. The fact is, during the entire time spent in watching the birds, I did not see them eat a single seed. The titmice flew farther into the woods with their winter "goodies," where the foliage was so dense, while the birds were so quick in movement, that it was impossible to see just where they hid their store; but they returned too soon for a new supply to allow time for eating the seeds.

One autumn I spent a week in a part of Kentucky where beechnuts were very plentiful, and saw the hairy and red-headed woodpeckers putting away their hoard of "mast" for the winter, industrious husbandmen that they were. A farmer said that he had often seen the woodpeckers carrying these nuts to a hole in a tree and dropping them into it. He once found such a winter store that must have contained fully a quart of beechnuts. In my own neighborhood the hairy woodpecker often hides tidbits in gullies of the bark, after the manner of the nuthatch. The crested tit also stows corn and various kinds of seeds in some safe niche for a time of exigency. Several times in the winter, when the ground was covered with snow, I have

surprised this bird eating a corn grain in the very depth of the woods, a considerable distance from the neighboring cornfields.

One winter day a nuthatch picked three grains of corn in succession from the fissures of an oak, and greedily devoured them. On another occasion one of these nuthatches was seen diving into a hole on the under side of a limb. Presently he emerged with a nut of some kind in his bill, and flew away, remaining just about long enough to eat it, when he returned for another. This he repeated until his dinner was finished.

No doubt, when cold and stormy weather comes, these birds have many a luscious mouthful because of their forehandedness, and no doubt they enjoy their well-kept stores as much as the farmer and his family relish their dish of mellow apples around the glowing hearth on a winter evening. It is no fancy flight, but a literal truth, that many a niche and cleft is made to do duty as larder for the feathered and furred tenants of the woods.

With the birds that migrate, autumn is the season for gathering in large convocations, holding "windy congresses in trees," as Lowell aptly puts it. The aerial movements of some of these feathered armies are often worthy of observation. Memory lingers fondly about a day in autumn when two friends and myself were clambering up the side of a steep hill or ridge that bounded a green hollow on the south. We had gone half-way to the top when we turned to admire the panorama spread out picturesquely

before us. Our exclamations of pleasure at the scene were soon interrupted by a shadow hurtling across the hollow, and on looking up, we saw a vast army of crow blackbirds sweeping overhead, moving about fifty abreast. How long the column was I cannot say, but it extended over the hollow from hilltop to hilltop and some distance beyond in both directions. The odd feature about the ebon army's evolutions was this: The vanguard had gone on far beyond the ravine, and was pushing over the opposite ridge, when there was a peculiar swaying movement near the centre directly above the hollow; then that part of the column dropped gracefully downward toward the trees below them; at the same moment those in the van swung lightly around to the right and returned, while the rear part of the column advanced rapidly, and then all swept grandly down into the tops of the tall trees in the ravine. It was a splendid military pageant, and might well start several queries in the interrogative mind. Where was the commander-in-chief of that sable army? Was he near the centre of the column? If so, why should he station himself there instead of at the head? Again, how could the message to return be sent so speedily to the vanguard? Do birds employ some occult method of telegraphy? But these are questions more easily asked than answered; for no one, so far as I know, has yet given special attention to the military tactics of the armies in feathers.

It may be a somewhat abrupt transition from a

crowd to an individual, but the reader must bear in mind that a close logical unity cannot be preserved in a chapter composed of bric-à-brac; and, besides, is not every crowd made up of individuals? How great was my surprise, one summer day, to see a purple grackle stalking about in his regal manner on the flat rocks of a shallow woodland stream, and then suddenly wheel about, pull a crab out of the water, and fly off with it to a log, where he beat it to pieces and devoured it! I doubt if many persons are aware that this bird dines on crab. On the same day another grackle, striding pompously about in the shallow water, suddenly sprang up into the air, some six or eight feet, and caught an insect on the wing. This was a performance on the part of a crow blackbird never before witnessed by me.

One day in the woods my saucy little madcap, the crested titmouse, was tilting about on the twigs of a sapling like a trapeze performer in a circus. Sometimes he hung lightly to the under side of a spray, and pecked nits and other dainties from the lower surface of a leaf. While doing so, he happened to catch sight of an insect buzzing by; he flung himself at it like a feathered arrow; but for some reason he missed his mark, and the insect, in its efforts to escape, let itself drop toward the ground. An interesting scuffle followed; the titmouse whirled around and around, dashing this way and that like zigzag lightning, in hot pursuit, fluttering his wings very rapidly until he alighted on the

ground on the dry leaves, where he at last succeeded in capturing his prize. He gulped it down with a sly wink, as much as to say: "Was n't that a clever trick, sir? Beat it if you can!" Then he picked up a seed and flew with it to a twig in a dogwood sapling, where he placed it under his claws, holding it firmly as he nibbled it with his stout little beak. His meal finished, he suddenly pretended to be greatly alarmed at something, called loudly, *Chick*, *chick-a-da! chick-a-da-da!* and darted away like an Indian's arrow.

On the same day a golden-crowned kinglet — my Lilliputian of the woods — surprised me by dropping from a twig above me to the ground, right at my feet, passing within two or three inches of my face. Quick as a flash he leaped to a sapling before me, and I saw that he held a worm in his tiny bill. Of course, that was the prize for which he had dashed in such a headlong way to the ground.

Few birds have charmed me more than the jolly red-headed woodpecker, and many a quaint antic has he performed with all the nonchalance of a sage or a stoic. He has a queer way of taking his meals. The first time it came to my notice I was walking home, on a hot summer day, along a railway, when a red-head bounded across the track before me, holding a ripe, blood-red cherry in his beak. He made a handsome picture with his pure white and velvety black coat and vest, his crimson cap and collar, and his — here my tropes fail, and I am forced to become literal — long, black beak, tipped

with the scarlet berry. Swinging gracefully across the railway, he presently alighted on a stake of the meadow fence, where he seemed to place the cherry in a sort of crevice, and then sip from it in a somewhat dainty, half-caressing way, as if it were rarely billsome. My curiosity being excited, I eyed him awhile, and then, determined to reconnoitre, climbed the wire fence over into the meadow, and drove him away from his menu. There, in a small pocket of the fence-stake, apparently hollowed out, at least partially, by the bird himself, lay the cherry, its rind punctured in several places, where the diner-out had thrust in his bill to sip the juicy pulp underneath, — a sort of woodpecker's table d'hôte. The crevice had a rank odor of cherries dried in the sun, - a proof that it had been used for a dining-table for some time. The legs and wings of several kinds of insects were also strewn about. Since that day I have found many of these pockets in fence-stakes, posts, dead tree-boles, and old stumps, where woodpeckers have placed their dainties to be eaten at their convenience.

You have doubtless seen these red-heads catching insects on the wing. This they do with as much agility as the wood-pewee, sometimes performing evolutions that are little short of marvellous. From my study window I once watched one of these aeronauts as he sprang from the top of a tall oaktree in the grove near by, and mounted up, up, up in graceful terraces of flight, until he had climbed at least twice the height of the tree, when he sud-

denly stopped, poised a moment airily, wheeled about, and plunged downward headlong with a swiftness that made my head swim, closing the descent with a series of bounds, as if he were going down an aerial stairway. Whether he performed this feat in pursuit of an insect, or to display his skill, or only to give vent to his exuberance of feeling, I am unable to say.

The red-head has an odd way of taking a bath during a light shower, which he does by clinging lengthwise to an upright or oblique branch, fluffing up his plumes as much as possible, and then flapping his wings slowly back and forth, thus allowing the refreshing drops thoroughly to percolate and rinse his handsome feathers. And, by the way, the subject of bird baths is one of no small degree of interest to the ogler of the feathered creation. It has been my good fortune to see a brilliant company of warblers of various species — lyrics in color, one might call them — performing their ablutions at a small pond in the woods. How their iridescent hues flashed and danced in the sunshine, as they dipped their dainty bosoms into the water, twinkled their wings, and fluttered their tails, sending the spray like pearl-mist into the air! One sylvan picture like that is worth many a mile's tramping.

I once saw several myrtle warblers taking a dewbath. Do you wonder how they did it? They leaped from a twig in the trees upon the dew-covered leaves, —it was early morning, — and fluttered about until their plumes were thoroughly drenched, then

flitted to a perch to dry their bedraggled feathers and carefully arrange their dainty toilets.1

Besides, it has been my chance to witness my little confidant, Bewick's wren, taking a dust-bath, which he did in this manner: he would squat flat on his belly on the ground in the lane, completely hiding his feet, and then glide about rapidly and smoothly over the little undulations, stirring the dust in volatile cloudlets. Never have I seen any performance, even in the bird realm so varied and versatile, more absolutely charming; so charming, indeed, that I believe my brief description of it will fittingly bring this rambling chapter on "Bird Curios" to a close.

¹ Long after this statement had appeared in print, Mr. Bradford Torrey described, in the "Atlantic Monthly," a similar performance which he witnessed in Florida; and, rather oddly, myrtle warblers were also the actors in this instance.

III.

WINTER FROLICS.

TAD Mr. Lowell never written anything but "A Good Word for Winter," he would still have deserved a place in the front rank of American writers. What a genuine appreciation of Nature, even in her sterner and more unfriendly moods. breathes in every line of his manfully written monograph! Blessed be the man whose love for Nature is so leal and deeply rooted that he can say, "Even though she slay me, yet will I trust in her!" When the storm howls dismally, and the icy gusts strike you rudely in the face; when the cold rain or sleet pelts you spitefully; when, in short, Nature seems to frown and scold and bluster, — the loyal lover of her feels no waning of affection, but knows that beneath all her bluster and apparent harshness she carries a tender, maternal heart in her bosom that responds to his wooing. No, Thomson is in error when he says that winter is the "inverted year." Winter, as well as summer, is the year right end up, standing squarely on its feet; or, if it does sometimes turn a somersault, it quickly wheels about again into an upright position. Nor is Cotton's dictum correct that winter is "our mortal enemy."

It has been much misunderstood, and therefore much abused, for there are persons who will ever and anon malign that which is above their comprehension.

It is just possible that the weather may sometimes become too cold in the winter for open-air exercise; but the winter of 1890–1891, with its occasional snow-storms, its alternating days of rain and clear sunshine, was an almost ideal one for the rambler. There were times when the woods were clad in robes more beautiful than the green of spring or the brown of autumn; when I was compelled to exclaim with a Scottish poet,—

"Now is the time To visit Nature in her grand attire."

I mean those days when every twig and branch was "ridged inch-deep with pearl," making the woodland a perfect network of marble shafts and columns.

As to the feathered tenants of the woods, they were almost as light-hearted and gay as in the season of sunshine and flowers, save that they were not so prolific of song. Quite a number of interesting species were the constant companions of my winter loiterings, and several of them occasionally regaled me with snatches of melody. Among our winter songsters is the hardy Carolina wren. On December and January days when the weather was quite cold, his vigorous bugle echoed through the woods, Chil-le-lu, chil-le-lu, or, Che-wish-year, che-

wish-year, giving one the feeling that at least one brave little heart was not discouraged on account of the dismal moaning of the wintry storm. is every inch a hero, and I wonder Emerson did not celebrate his praise as well as that of the blackcapped chickadee, in verse. The wren is somewhat more of a recluse than most of my winter intimates. He has not been quite as sociable as I should have liked. Whether it was modesty or selfishness that made him a sort of eremite could not be determined. Most of his contemporaries, such as the chickadees, kinglets, nuthatches, and woodpeckers, prefer to go in straggling flocks; so that, as soon as I see one bird or hear his call, I feel sure that he is simply the sentinel of a bevy of feathered tilters and coasters at my elbow. No, they do not believe in monasteries or nunneries; they do not believe that it is good for a bird to be alone, whatever may be said of man or woman. Listen to that kinglet, the malapert, hanging head-downward on a spray and making his disclaimer: "No, sir, we birds are sociable beings, as men are, and like to hold commerce with one another. What good would it do to sing so sweetly or tilt so gracefully were there no auditors or spectators to admire our performances?" And all his plumed comrades cry, "Aye! aye!" by way of emphatic endorsement.

The division of these tenants of the woods into communities or colonies is a matter of unique interest to the ornithologist. For instance, there seemed to be at least two of these groups, one

dwelling chiefly in the eastern part of the woodland not far from a farm-house, and the other occupying the western part. Sometimes, too, another community was found in the partly cleared section at the northern extremity of one arm of the timber belt. These several groups reminded one of the nomadic tribes of Oriental countries, who rove from one locality to another within certain loosely defined boundaries. True, it is merely a matter of speculation; but I have often wondered if feuds and jealousies ever arise among these various feathered tribes, as is so conspicuously the case in the human world. I doubt it very much, for my woodland birds dwell together in comparative harmony, and are not half so quarrelsome and envious as many communities of men and women. Bird nature is evidently not so depraved as human nature. Perhaps, as the birds had no direct hand in the first transgression, the curse did not fall so blightingly upon them.

My western bird colony were somewhat erratic in their movements. During December and the first week in January I found them almost invariably in a secluded part of the woods about half-way between the northern and southern extremities; but when, about the middle or possibly the twentieth of January, I visited the haunt, not a bird of any description could be found. Had all of them gone to other climes? I felt a pang as the thought came. But there was no occasion for solicitude. Near the southern terminus of the woods, although

still in a dense portion of them, the colony had taken up a temporary abode. Here they remained for over a week, and then, on the twenty-ninth of the month, which was a rainy day, they shifted back to their old tryst, while scarcely a bird was to be found in the locality they had just left. Thus by caprice, or on account of the exigencies of food, they oscillated from place to place.

There were some birds here all winter that were not found during the previous winter — that of 1889-1890. The golden-crowned kinglet was one. Every day, rain or shine, warm or cold, he flitted about so cheerfully and with so innocent an air that I often spoke to him as if he were a real person; and he appreciated my words of praise, too, without doubt, for he would come scurrying near, disporting his head so that I could catch the gleam of his amber coronal, with its golden patch for a centre-piece. Then there was that quaint little genius, the brown creeper, hugging the trunks of the trees and saplings, and tracing the gullies of the bark as he sought for such food as he relished. See him turn his cunning head from side to side to peer under a loose scale!

Among my most pleasant winter companions were the black-capped chickadees or tomtits. Not for anything would I cast a reflection upon these engaging birds, but candor compels me to say that they seem to be somewhat fickle; that is, I cannot always tell where to find them, or if they will let themselves be found at all. Early in the spring of

last year they made their appearance in these woods, remaining a week or more, and then were not seen until about the middle of August. Again they disappeared, returning in October, and then hied away once more and did not come back until January. Besides, at one time they associated with the eastern colony of birds and at another with the western. Like some "featherless bipeds," — Lowell's expression,— they seemed to be of a roving disposition. A winter ago they occasionally stirred the elves and brownies of the woodland into transports by their sweet, sad minor whistle, but this winter they were provokingly chary of their musical performances.

For ever-presentness, however, both summer and winter, the crested titmice and white-breasted nuthatches bear off the palm. Many droll tricks they perform. One day in January a titmouse scurried from the ground into a sapling; he held a large grain of corn between his mandibles, and, after flitting about a few moments, hopped to a dead branch that lay across the twigs, and deftly pushed the grain into the end of the bough. I stepped closer, when he tried to secure the hidden morsel; but my presence frightened him away, and I climbed the sapling, drew the broken branch toward me, and peered into the splintered end; yes, there was the grain of corn wedged firmly into a crevice. The provident little fellow! He had secreted the morsel for a stormy day when it would be impossible to procure food on the ground. If Solomon had watched these thrifty, industrious birds, as they pursue their untiring quest for food, he doubtless would have written in his Proverbs: "Go to the titmouse, thou sluggard; consider his ways, and be wise."

Associated with the titmice, kinglets, and nuthatches were the downy woodpeckers, which belong to the artisan family of the bird community, being hammerers, drillers, and chisellers all combined. They pursue their chosen calling most sedulously. "What's the use of having a vocation if you don't follow it?" you may almost hear them say as they cant their heads to one side and peep under the bark for a tidbit, or hammer vigorously at a crevice in which a worm is embedded. The hairy woodpeckers, which are somewhat larger, are more erratic in their movements, none having been seen from the autumn until the latter part of January. At this date I heard their loud, nervous Chi-i-i-r-r, as they dashed from tree to tree apparently in great excitement.

I cannot forbear contrasting this winter with the previous one. In the winter of 1889–1890 the songsparrows never left us at all, but sang on almost every pleasant day when I went to the woods or marsh; but this winter, which was somewhat colder, they went to other climes, and left the fringes of the pools and the thickets in the swamp tenantless, songless, and desolate. In 1889–1890 the cardinal grossbeaks whistled every month, making the woods ring even in January; this winter not a single note was heard from their resonant throats. I had just

begun to fear that the pair which had greeted me so frequently the previous winter had been slaughtered by some caterer to the shameful fashions of the day, when, on the twenty-eighth of January, I was gladdened by the sight of them in company with several of their relatives or acquaintances and a bevy of tree-sparrows. Where had the grossbeaks been since November? And if they had gone south, why did they return from their visit so early in the season? Or perhaps a still more pertinent inquiry would be, Why had they gone away at all? It is difficult, however, to explain grossbeak caprice or ratiocination.

What do the birds do when it rains? No doubt, when the rain pours in torrents, they find plenty of coverts in the thick bushes or in the cavities of trees; but when the rain falls gently, and I make my way to their haunts, as I often do, they flit about as industriously as ever in their quest for food, only stopping now and then to shake the pearly drops from their water-proof cloaks. In such humid weather the wood-choppers in the forest—the human ones—stop their work and seek shelter. Not so these feathered workers, who gayly continue their playful toil, and exclaim exultingly, "Is n't this a jolly rain?"

In another chapter mention has been made of the provident habits of certain birds, especially the titmice and nuthatches, in laying by a winter store. As if to confirm what has been said, one winter day a nuthatch went scudding up and down the trunk of a large oak-tree at the border of the woods. Presently he cried, Yank! yank! as if to announce a discovery. Then he pecked and pried with all his might, until at length he drew a grain of corn out of a crevice of the bark, placed it in a shallow pocket on the other side of the tree, and began to pick it to pieces, swallowing the fragments as he broke them off. When this grain had been disposed of, he found another, and then another, until his hunger seemed to be appeased, when he darted off into the woods.

Other pedestrians and observers may differ from me both in temperament and habits, but to my mind nothing could be more delightful than a ramble in a snow-storm. Let the wind blow a gale from the west, driving the cold pellets blindingly into your face, and trying to rob you of your overcoat and cap; yet, if you have the spirit of the genuine rambler, your blood will tingle with delight, as well as with a sense of masterly overcoming, as you plod along; while you feel that every fierce gust that strikes you is only one of Nature's love-taps, a little rough, it is true, but for that very reason all the more expressive of affection. Stalking forth into the teeth of a winter storm develops the hardy traits of character, and puts the ingredients from which heroes are made into the pulsing veins. Many a time, as I have pushed my way triumphantly through the pelting wind, I have answered with a shout of joy Emerson's vigorous challenge, —

"Come see the north wind's masonry.

Out of an unseen quarry, evermore

Furnished with tile, the fierce artificer

Carves his white bastions with projected roof

Round every windward stake, or tree, or door."

My winter saunterings have never been solitary, although often taken in haunts "far from human neighborhood." The birds have afforded me all the companionship I have really craved. One is never lonely when one can see the flutter of a wing or hear the calls of the blithe commoners of the wildwood. When your soul is fretted by the daily round of strifes and jealousies in the human world, you can hie to the woods, and learn a lesson of conciliation from the example of the loving fellowship that exists in the bird community. I have often been shamed by this constant display of amity among many feathered folk, when I thought of the childish bickerings of men in church and state.

But moralizing aside, I must describe the behavior of my little winter friends, the tree-sparrows. They are the hardiest birds that spend the winter in my neighborhood, disdaining to seek shelter in the thick woods during the most violent snow-storm. Even the snowbirds, whose very name is a synonym for toughness, are glad to seek a covert in some secluded forest nook; but the tree-sparrows choose the clearing at the border of the woodland, where the wind howls loudest and blows the snow in wild eddies. Here they revel in the storm, flitting from twig to twig, hopping on the snow-covered ground

as if it were a carpet of down, and picking seeds from grass-stems and weed-stalks. All the while they keep up a cheerful chirping, as if to express their appreciation of the pleasant winter weather.

Strangest of all is their wading about in the snow. It makes me shiver to see their little bare feet sinking into the icy crystals, and I feel disposed to offer them my warm rubber boots; only I know they would decline the proposal with scorn. "I am no tenderfoot!" one of them seems to say, with cunning literalness. Their dainty tracks in the snow are suggestive, and give to the thoughtful observer more than one clew to bird cerebration. Let us follow one of these winding pathways. Here a bird alighted, his feet sinking deep into the cold down; then he hopped along to this tuft of grass, where he picked a few mouthfuls of seeds, standing up to his body in the snow; then an impulse seized him to seek another feeding-place; so he went plunging through the drifts, leaving, at regular intervals, the prints of his two tiny feet side by side, while his toes traced a slender connecting line on the white surface between the deeper indentations. But here is another path. What impulse seized this bird to turn back like a rabbit on his track? For it is evident that this is sometimes done. Then here are only two or three footprints, showing that the bird alighted suddenly, and as suddenly yielded to an impulse to fly up again. What thought struck him just at that moment that made him so quickly change his mind?

At one point I traced a path which bore evidence of having been used a number of times for a long distance, as it wound here and there in an extremely sinuous course among the bushes and briers. Probably it was a sparrow-trail, if not a thoroughfare, and had been used by many birds. In more than one place were small hollows in the snow, just large enough for a bird's body to wallow in. Usually they were at the terminus of one of these thoroughfares. Might the birds have tarried there to take a snow-bath? I have seen birds taking pool-baths, shower-baths, dew-baths, and dust-baths. Who will say they never take a snow-bath?

Next to the tree-sparrows, the juncos delight to hold carnival in the snow; but their behavior in this element is somewhat different: they are not so fond of hopping about in it, and do not plait such a network of tracks among the bushes. They will fly from a perch directly to the ground near a weed-stalk or other cluster of dainties, and stand quietly in the snow up to their little bodies while they take their luncheon. Sometimes their white breasts rest on the surface of the snow, or in a slight depression of it, when they look as if they were sitting in a nest of crystals.

The eighth of January was a cold day; in a little opening in the midst of the woods was a covey of snowbirds, and, incredible as it may seem, several of them stood in the selfsame tracks in the snow, so long that my own feet actually got frost-bitten while I watched them, although I wore three pairs of

socks — this is an honest confession — and a pair of warm rubber boots. More than that, they thrust their beaks into the snow and ate of it quite greedily. What wonderful reserves of caloric must be wrapped up in their small bodies to enable them to keep themselves comfortable in winter with never a mouthful of warm victuals or drink! That the birds should thrive and be happy in the spring and summer is no matter of surprise; but it remains for the lover of out-door life in the winter to prove that many of them are just as cheerful and content when the mercury has taken a jaunt to some point far below zero.

The student of Nature cannot always be in the same mood. Indeed, Nature herself is, at times, as whimsical, apparently, as the human heart. There are times when she seems quite stolid, keeping her precious secrets all to herself, as if her lips had been hermetically sealed. With all your coaxing and hoaxing and flattery, you cannot win from her a response. Emerson, in one of his poems, speaks about the forms of Nature dulling the edge of the mind with their monotony; and this sometimes seems to be the case. Yet I must protest at once that it is not generally true. There are days when Nature fairly bubbles over with good cheer, and grows talkative and even confidential, responding to every touch of the rambler as a well-strung harp responds to the touch of a skilful player. It is difficult to account for her changeable moods, but obviously they are not always to be traced only to the mind of the observer.

During the winter of 1891–1892 many a tramp was taken to the homes of the birds; and let me whisper that there were days when even they seemed to be dull and commonplace. That is a frank concession for a bird-lover to make, but it is the truth. Sometimes these feathered actors have behaved in the most ordinary way, failing to perform a single trick that I had not seen a score of times before, and I have actually gone home without making a single entry in my note-book. But it has not always been so. There, for example, was the twenty-second of January; what an eventful day it was! The morning of the twenty-first had been very cold, the mercury having sunk, probably in a fit of despair, to fourteen degrees below zero. During the day, however, the weather grew considerably warmer; and when the twenty-second came, bright and clear, though still cold, one could take a jaunt with some comfort. The sun shone from a cloudless sky, and having put on my warm rubber boots, I waded out through the deep snow to the woods. The severe weather had not discouraged the jolly juncos and tree-sparrows, or driven them to a warmer climate. They delight in cold weather; it seems to make them all the merrier. They were flitting about in the bushes and trees, chirping gayly, or, like myself, were wading in the snow, although they had no woollen stockings for their little feet, much less warm rubber boots. What hardy creatures they are! For long distances I could trace their dainty tracks in the snow, winding in and out among the bushes and

weeds, and making many a graceful curve, loop, angle, and labyrinth. By following these little paths, as has been said before, you may trace the thoughts of a bird,—that is, you may for the time become a bird mind-reader, interpreting every impulse that seized the throbbing little brain and breast.

While watching these birds in the woods, I observed a new freak of bird deportment. The juncos would fly up into the dogwood-trees, pick off a berry, nibble it greedily a moment with their little white mandibles, and then fling it to the ground. My eye was especially fixed on one little epicure. Presently he found a berry that was juicy and quite to his taste, and what did he do but seize it in his beak and dash down into the snow, where he stood legdeep in the icy crystals until he had eaten his bloodred tidbit! He was in no hurry, but slowly picked the berry to pieces, flinging it again and again into the snow, devouring the soft red pulp and throwing the rind and seed away. He must have stood for fully five minutes in the same tracks; at all events, it seemed a long while to me, standing stock-still in the snow, watching him eat his cold luncheon, while my feet were becoming chilled. I should have pitied his little feet had he not seemed so utterly indifferent to the cold. Afterward I saw a number of juncos, as well as tree-sparrows, taking their dinner in a similar way, — that is, on the snow, which seemed to serve them for a table-cloth. Having eaten the pulp of the berries, they left the pits and scarlet rinds lying on top of the snow. Crumbs they were, scattered

about by these precious children of the woods! In this respect the snowbirds and tree-sparrows differ from the crested titmice, which reject the pulp of the dogwood berries entirely, but bore out the kernel of the pit and eat it with a relish. And as to the gluttonous robins, bluebirds, woodpeckers, and waxwings, they swallow these berries whole. Every citizen of Birdville to his own taste, so I say.

In the corn-field adjoining the woods I witnessed another little scene that filled me with delight. At some distance I perceived a snowbird eating seeds from the raceme of a tall weed, which bent over in a graceful arc beneath its dainty burden. Apparently he was enjoying his repast all to himself. I climbed the fence, and cautiously went nearer to get a better view of the little diner-out. What kind of discovery do you suppose I made? I could scarcely believe my eyes. There, beneath the weed, hopping about on the snow, were a tree-sparrow and a junco, picking up the seeds that their little companion above was shaking down. It was such a pretty little comedy that I laughed aloud for pure delight. It seemed for all the world like a boy in an apple-tree shaking down the mellow fruit for his playmates, who were gathering it from the ground as it fell. It was a pity to disturb the birds at their festivities, and I felt like a bully for doing so; but in the interest of science, you see, I had to drive them away to see what kind of table they had spread. Beneath the weed the snow was etched with dainty birdtracks, and thickly strewn with black seeds from the raceme of the weed-stalk.

Farther on in the woods, another cunning little junco proved himself no lay figure. It seemed, in fact, to be a junco day. When I first espied him, he was standing in the snow beneath a slender weedstem eating seeds from his white table-cloth. But the curious feature about his behavior was that, whenever his supply of seeds on the snow had been picked up, he would dart up to the weed-stem (which was too slender to afford him a comfortable perch), give it a vigorous shake, which would bring down a quantity of seeds, and then he would flit below and resume his meal. This he did several times. I should not have believed a junco gifted with so much sense had not my own eyes witnessed this cunning performance. Had some other observer told the story, I should have laughed at it a little slyly and more than half unbelievingly; but, of course, one cannot gainsay the evidence of one's own eyesight.

Nothing in all my winter rambles has surprised me more than the evident delight some species of birds take in the snow. It is a sort of luxury to them, wading-ground and feasting-ground all in one. How they keep their little bare feet from becoming chilblained is a mystery. The evening of the twentieth of January was bitterly cold, the wind blowing in fierce, howling gusts from the northwest. Yet when, at about five o'clock, I stalked out to the pond in the rear of my house, the tree-sparrows and song-sparrows were fairly revelling, not to say wallowing, in the snow among the weeds. The wind was so biting that I soon hurried back to the house, and left them to their midwinter carousal.

Quite a respectable colony of flickers found a home during the winter in my favorite woodland. Unlike the other birds mentioned, they do not wade about in the snow. No; to their minds, a bare tree-wall is the desideratum for a tramping-ground; and if they need more exercise than promenading affords them, they can take to wing and go bounding from one part of the woods to another. A flicker is a staid bird when he does n't happen to be in a playful mood. You would have laughed at one in December which was clinging to a branch high up in a tree with his head right in front of a woodpecker hole, over which he seemed to be standing guard. There he clung, as if that hollow contained the most precious treasure, and would not desert his post, although I leaped about on the ground, shouted loudly, and even flung my cap in the air like a wild man, to frighten him away. How comical he looked in his rôle of sentinel! He never smiled or even winked, but left such trifling to the human scatterbrain below, who was so ill-mannered as to laugh at a well-behaved woodpecker. Perhaps he had a winter store of food stowed away in that cavity, and thought he had to guard it well, now that a real brigand had come prowling about the premises.

IV.

FEBRUARY OUTINGS.

If I were not afraid of the ridicule of the cynic, I should begin this February chronicle with an exclamation of delight; but in these days, when so many of the so-called cultured class have taken for their motto, Nil admirari, one must try to repress one's enthusiasm, or be scoffed at, or at least patronized, as young and inexperienced. Yet it would be out of the question for the genuine rambler to keep the valve constantly upon his buoyant feelings. If he did so, he would be wholly out of tune with the jubilant mood of bird and bloom and wave around him.

Almost every day of February, 1891, was a galaday for me, on account of the large number of birds in song at that time. The weather was not always pleasant, but the month came in blandly, bringing on its gentle winds many birds from their southern winter-quarters; and as they had come, they made up their minds to stay. My notes begin with the eleventh of the month, and my narrative will begin with that date. In the evening I strolled out to my favorite swamp. On my arrival all was quiet; but soon the song-sparrows, seeing that a human auditor

had come, broke into a jingling chorus. Early in the season as it was, they seemed to be almost in perfect voice, only a little of the hesitancy and twitter of their fall songs being distinguishable; nor did they seem to care for the raw evening wind blowing across the meadows, or the gray clouds scurrying athwart the sky, but kept up their canticles until the dusk fell.

Two days later, while sauntering through a woodland, I had the greatest surprise of the winter. For several years I had been studying the tree-sparrows, hoping to hear them sing, but only two or three times had my anxious quest been rewarded with even a wisp of melody from their lyrical throats. On this day, however, I came upon a whole colony of them in full tune, giving a concert that would have thrilled the most prosaic soul with poetry and romance. It was the first time I had ever really seen these birds while singing; but now, so kind was fortune, I could watch the movement of their mandibles, the swelling of their throats, and the heaving of their bosoms while they trilled their roundelays. My notes, taken on the spot, run as follows: "The song is somewhat crude and labored in technique; but the tones are very sweet indeed, not soft and low, as one author says, but quite loud and clear, so that they might be heard at some distance. The minstrelsy is more like that of the foxsparrow than of any other sparrow, though the tones are finer and not so full and resonant. Quite often the song opens with one or two long syllables, and

ends with a merry little trill having a delightfully human intonation. There is, indeed, something innocent and even childlike about the voices of these sparrows. Had they the song-sparrow's skill in execution, they would rival that triller's vocal performances. How many of them are taking part in the concert! They seem to be holding a song carnival to-day, and there is real witchery in their music. Frequently their songs are superimposed, as it were, upon the semi-musical chattering in which these birds so often indulge."

But, strange to say, although the conditions were apparently in every respect favorable, I did not hear the song of a single tree-sparrow after that epochal day for more than a year. Evidently these birds are erratic songsters, at least in this latitude. On the same day the meadow-larks flung their flute-like songs athwart the fields, and the bold bugle of the Carolina wren echoed through the woods.

February 14. "In the swamp the song-sparrows are holding an opera festival," my notes run. "One of them trills softly in a clump of wild-rose bushes, as if asking permission to sing; and then, his request being gladly granted, he leaps up boldly to a twig of a sapling, and breaks into a torrent of melody. Another, in precisely the same tune, answers him farther down the stream, the two executing a sort of fugue. A third leaps about on the dry grass that fringes a ditch, twitters merrily for a while, then flies to a small oak-tree near by, and — well, such a loud, rollicking, tempestuous song I have

never before heard from a song-sparrow's throat. Some of his tones are full and exultant, while others in the same run are low and tender, like the strains of a love-lorn harp. The tones produced by exhalation can be distinguished from those produced by inhalation. Sometimes his voice sounds a little hoarse, as if he had strained one of the strings of his lyre, but I find, on focusing my ear upon them, that these are some of his most melodious notes. Presently, in a fit of ecstasy, he hurls forth such a torrent of song, in *allegro furioso*, that one almost fancies the naiads and water-witches of the marsh are crying out for admiration.

"Here is something worthy of note — when the song-sparrow begins a trill, he usually sings it over a number of times, and then, as if wearied with one tune, turns to another; and yet with all his variations — and I know not how many he is capable of singing — there is always something distinctive about his minstrelsy that differentiates it from that of all other birds."

February 17. "Again in the swamp. It seems to me I have never before heard the song-sparrows sing so gleefully. Every concert goes ahead of its predecessor. Here is a sparrow hopping about on the green grass among the bushes like a brown mouse; now he chirps sharply as if to attract my attention, and then bursts into a melody that almost makes me turn a somersault for very joy; and now, having sung his intermittent trills for a few minutes, he begins to warble a sweet, continuous lay, with an andante movement, as if he could not stop.

"A little farther on, another songster, with a voice of excellent timbre, is descanting on a small oak sapling. Note, he runs over several trills, rising higher at every effort, until at last he strikes a note far up in the scale, holds it firmly a moment, and then drops to a lower note. Then he repeats the process, the summit of his ambition being attained whenever he reaches that high note, which is bewitchingly sweet. How clear and true his voice rings!

"Sometimes a silence falls upon the marsh; not a note is to be heard for a minute or two; and then, as if by a preconcerted signal, a dozen sparrows throw the air into musical tumult, their combined rush of notes seeming almost like a salvo. Often, too, when I approach the marsh, no music is heard, but no sooner have I climbed the fence into the enclosure than the choral begins; so that I believe I am justified in saying that the song-sparrow appreciates a human auditor. This is not said by way of disparagement, — by no means; for almost all musicians, whether human or avian, sing to be heard."

On the same day I saw a song-sparrow whose central tail-feather was pure white from quill to tip, and the bird remained in the marsh until the twenty-fourth of the month, his odd adornment visible from afar. I was also surprised to find two male chewinks in the bushes. A cardinal grossbeak was also seen, and a robin's song and the loud call of a flicker were heard.

My next outing occurred on the nineteenth, when the weather had turned colder, and snow was falling, mingled with sleet; yet several songsparrows trilled softly in the marsh. On the twenty-third crow blackbirds were seen, and on the twenty-fourth a turtle-dove was cooing meditatively, and the song-sparrows were holding another opera festival. The last days of February became cold again, and March brought several severe storms; but I think none of the hardy, adventurous birds named, retreated to a warmer clime, even if they did regret having left their winter quarters a little prematurely.

V.

ARRIVAL OF THE BIRDS.

AVE any of my readers kept a record of the arrival of the birds during the spring? The northward procession of the battalions in feathers is an interesting study. Why do some birds begin their pilgrimage from the south so much earlier than others? What is there in their physical and mental make-up that gives them the northward impulse even before fair weather has come? Do they become homesick for their summer haunts sooner than their fellows? These are questions that are much more easily asked than answered. The size of the bird furnishes no clew to the solution, for some small birds are better able to resist the cold than many larger ones. There is the little black-capped titmouse — a mere mite of a bird — which generally remains in my neighborhood all winter, cheerfully braving the stormiest weather; while the brown thrasher, fully five times as large, is carefully warming his shins in the sunny south, and will not venture north until the spring has come to stay. Here, too, is Bewick's wren on the first day of April, with no thought of making an April fool of any one, — while the Baltimore orioles, rose-breasted

grossbeaks, and scarlet tanagers, all larger than he, are tarrying in Georgia and Alabama. There is nothing in the size or color or form of the birds that makes this difference; it is doubtless in the blood.

I have kept a careful memorandum of the arrival of these feathered voyagers (this was during the spring of 1892), and know almost to a certainty the day, and sometimes the hour, when they cast anchor in this port. The winter had been unusually severe, and yet the migration began as early as the twenty-second of February, when the first meadowlarks put in appearance, and sent their wavering shafts of song across the frost-bound fields. They had left only on the last day of December, but had apparently remained away as long as they could. On the same day the killdeer plovers also arrived, making their presence known by their wailing cry. On the twenty-third I heard the Q-q-o-o-ka-l-e-e-e of the red-winged blackbirds, and on the morning of the twenty-fourth the first robins dropped from the sky after a "flying trip" in the night from some more southern stopping-place; but the weather was too cold for them to sing. Yet the song-sparrows and meadow-larks defied the cold with their cheerful melody. While the robin is a very gay and lavish songster, he wants favorable weather for his vocal rehearsals, and a "cold snap" will easily discourage him. He is evidently somewhat of a fairweather minstrel. It was on February twentyeighth, a pleasant day, that I caught the first strain of robin melody.

The towhee buntings dropped anchor on the seventh of March, filling the woods with their fine, explosive trills. It was a pleasant day, a sort of oasis in the midst of the stormy weather, and it did not seem inapt to speculate a little as to the thoughts of these birds on their arrival at their old summer haunts, after an absence of four or five months. Was the old brush-heap, where they had built their nest the previous spring, still there? Had the winter storms spared the twig on the sapling where Cock Bunting had sung erstwhile his sweetest trills to his dusky mate? "What if the woodman has cleared away our pleasant corner of the woods?" whispers Mrs. Towhee to her lord as they approach the sequestered spot. How their hearts must bound with joy when they find sapling and brush-heap and winding woodway all as they had left them in the autumn! No wonder they are so tuneful! Even the snow-storms that moan and howl through the woods a few days later cannot wholly repress their exuberant feelings.

On the same date a whole colony of young songsparrows stopped at this station on their journey northward, although you must remember that quite a number of their elders remained here through the winter. What a twittering these year-old sparrows made in the bushes fringing the woods! I actually laughed aloud at their crude, tuneless, quasi-musical efforts. They were not in good voice, and, besides, had not yet fully learned the tunes that are sung in sparrowdom, and could not control their vocal

chords. They made many sorry and amusing attempts to chant and trill, but their voices would break and catch in the most remarkable ways, now sliding up too high in the scale, now sliding down too low, and now veering too much to one side, so to speak. One tyro, I observed, sang the first part of a run very well, almost as well, in fact, as an adult musician could have sung it; but when he tried to finish, his voice seemed to fly all to flinders. He made the attempt again and again, but to no purpose. It was a day for which I have cut a notch in the tally-stick of memory. Leaving the company of young vocalists at their rehearsals at the border of the woods, I made my way to a swamp not far off, where a pleasant surprise lay in ambush. Here were no longer found young song-sparrows, but adults, and you should have heard them sing. What a contrast between the crude songs of the young birds and the loud, clear, splendidly intoned and executed trills of these trained musicians!

But I must return to the subject of migration. The fifteenth of March was a raw, blustering day, as its predecessors had been; but in the woods several fox-sparrows were singing, not their best, of course, but fairly well for such weather. They must have come during the night. But why had they come when the weather was so cold? Most birds wait until there is a bland air-current from the south on which they can ride triumphantly. Had this small band of fox-sparrows followed the example of a well-known American humorist, and gone to

"roughing it"? Strange to say, I saw no more foxsparrows until the twenty-eighth, when the weather had grown warm. That was also the day on which I saw the first winter wren scudding about in the brush-heaps and wood-piles and perking up his tail in the most approved bantam fashion. It may be a poor joke, but the thought came of its own accord, that if brevity is the soul of wit, this little wren must have a very witty tail; and it really is an amusing appendage, held up at an acute angle with the bird's sloping back.

As I strolled along the edge of the woods on the same day, the fine rhythmic trill of the bush-spar-row reached my ear. He was celebrating his return to this sylvan resort, and his voice was in excellent trim; the fact is, I never heard him acquit himself quite so well, not even in May. Miss Lucy Larcom, of tender and sacred memory, has happily characterized this triller's song in melodious verse:—

"One syllable, clear and soft
As a raindrop's silvery patter,
Or a tinkling fairy-bell, heard aloft,
In the midst of the merry chatter
Of robin and linnet and wren and jay,—
One syllable oft repeated;
He has but a word to say,
And of that he will not be cheated."

But why was not the grass-finch, his relative of the fields, in just as good voice when he arrived on the thirty-first? The last two springs this bird had to be on his singing-grounds several days before he

recovered his full powers of voice. On the twentyninth the phæbe came with his burden of sweet song, and the first of April brought Bewick's wren — sweetvoiced Arion of the suburbs — and the chipping sparrow, whose slender peal of song rang through my study window. Here my record stops for the present year; but by reference to my last year's notes (1891) it appears that Bewick's wren did not then arrive until April tenth, and chippy not until April twelfth. The difference in the seasons is doubtless the primary cause of this divergence in the time of arrival. April brings many other winged pilgrims, — the white-throated and white-crowned sparrows, the thrushes, the orioles, the tanagers, the cat-birds, the swallows and swifts, and some of the hardier warblers, while the great army of warblers delay their coming till the first and second weeks in May. And all the while we are having bird concerts, cantatas, oratorios, and opera festivals, mingled with some tragedy and a great deal of comedy, and there are love songs and cradle songs, matins and vespers, and twitterings expressive of every shade and variety of feeling.

I yield to the temptation to add a brief article entitled "Watching the Parade," which was published in a New England journal in the summer of 1893, and contains a record of some observations made during the previous spring. By comparison with the preceding part of this chapter, it will indicate the versatile character of bird study in the

same season of different years. I shall give it almost verbatim as first published, hoping the rather "free and easy" style will be generously overlooked by critical readers.

Every spring and autumn for many years I have been watching the parade; not a parade of soldiers, or of civic orders, or even of a menagerie; but one of far more interest to the naturalist,—the procession of the army in feathers. A wonderful cortége it is, this army in bright array; and every time you witness it, you add something new to your knowledge of bird life. The last spring has been no exception, although, when the pageant began, I wondered if I should see any new birds or hear any new songs, and even felt a little doubtful about it.

But quite early a new bird was added to my list. It was the blue-winged warbler, which carries about a scientific name big enough to break its dainty back. Just think of calling a tiny bird *Helmintho-phila pinus!* But happily it does not know its own name, and, like some of my readers, would not be able to pronounce it if it did, and therefore no serious harm is done. This bird may be known by the bright olive-green of its back, the pale blue of its wings, the pure yellow of its under parts, and the narrow black line running back through its eye. It seemed to be quite wary, yet I got near enough to see it catch insects on the wing like a wood-pewee, as well as pick them from the leaves of the trees.

The bird student must sometimes let problems go

unsolved. For nearly, perhaps quite a week, three or four large, heavy-beaked birds flitted about in several tall tree-tops of the woods, but were so far up that, try as I would, I could not identify them even with my opera-glass. In my small collection of mounted birds there is a female evening gross-beak; and the tree-top flitters looked more like it than any other bird of my acquaintance. If they were evening grossbeaks, it was a rare find; for these birds are almost unknown in this part of the country, only a few having ever been discovered in this State. Their usual *locale* is thought to be west of Lake Superior. I was sorely tempted to use a gun, but decided that it was just as well not to know some things as to massacre an innocent bird.

However, other finds were more satisfactory. Strolling through the woods one day, I caught the notes of a bird song that did not sound familiar. Surely it was a vireo's quaint, continuous lay; but which of the vireos could it be? It was different from any vireo minstrelsy I had ever heard. Peering about in the bushes for the author of those elusive notes, I at length espied a little bird form, and the next moment my glass revealed the blueheaded or solitary vireo. It was the first time I had ever heard this little vocalist sing in the spring, although we have met - he and I - on familiar terms every season for many years. Here is a query: Why was blue-head silent other years, and so tuneful that spring? For he was often heard after that day.

The song was varied and lively, sometimes running high in the scale, and had not that absent-minded air which marks the roundelay of the warbling vireo. It is much more intense and expressive, and some notes are quite like certain runs of the brown thrasher's song. The bird did two other things that were a surprise: he chattered and scooled much like the ruby-crowned kinglet. Then he caught a miller, and, as it was too large to be swallowed whole, placed it under his claws precisely like a chickadee or blue jay, and pulled it to pieces. This was a new trick to me, nor have I ever read, in any of the bird manuals, of his taking his dinner in this way.

The red-eyed vireo also chanted a little roundel that spring, as he pursued his journey northward, his song being slower in movement and less expressive and varied than that of his cousin just referred to.

Indeed, the procession seemed to be especially musical during that spring. One day, in the last week in April, a new style of music rang out at the border of the woods, and I fairly trembled lest the jolly soloist should scud away before I could identify him; but he had no intention of making his escape, and giving the credit of his vocal efforts to somebody else in the bird world. At length I got my glass upon him. He proved to be the purple finch, — rosy little Mozart that he was! For years he has passed through these woods with the vernal procession, but this was the first time he had ever been obliging enough to sing in my hearing. And

what a rolling, rollicking little song it was, just as full of good cheer as bird song could be! He continued his vocal rehearsal for many minutes on that day, but afterward he and his fellows were as mute as the inmates of a deaf and dumb asylum. A purple finch once sang here in the fall; but the music was quite harsh and squeaking, very different from his springtime melody.

One of the most beautiful birds that have a part in the vernal parade is the rose-breasted grossbeak, -a bird that you will recognize at once by his white-and-black coat and the rosy shield he so bravely bears on his bosom. In his summer home, farther north, I have often heard his vivacious music (this was in northern Indiana); but until the past spring he has always been silent as he passed through this neighborhood, save that he would sometimes utter his sharp, metallic Chip. However, on the fourteenth of May two of these grossbeaks sang a most vigorous duet in the grove near my house; and I wish you could have heard it, for it would have made you almost leap for joy, it was so jolly and rollicksome. At first you may be disposed to think the grossbeak's song much like the robin's, but you will soon find that it is finer in several respects, the tones being clearer and fuller, the utterance more rapid and varied, and the whole song much more spirited; and that is saying a good deal, considering Cock Robin's cheery carols. No one should fail to hear this rosy-breasted minstrel, whatever else he may miss. It will make him

feel that life is worth living; that if God made this bird so happy, he must intend that his rational creatures, who are of more value than a bird, should also be cheerful.

Never were the birds so gentle and confiding as they were during that spring. A female redstart took up her residence in my yard for fully a week, flitting about in the trees and grape-arbor, seeking for nits and worms; and you are to remember that I live in town (though in the outskirts), with many houses and people about, and an electric car whirling along the street every few minutes. A dainty bay-breasted warbler — little witch! — kept the redstart company, letting me stand beneath the trees on whose lower branches she tilted, and watch her agile movements; yet one of my bird books declares that the bay-breasted warblers remain in the highest tree-tops of the woods! Both these birds occasionally uttered a trill.

The goldfinches, too, were very familiar. They came with the procession as far north as my neighborhood, but stopped here for the summer, instead of continuing their pilgrimage. Some of their brothers and sisters remained with me all winter. Within a few feet of my rear door stands a small apple-tree, in whose branches these feathered goldflakes flashed about, and sang their childlike ditties, and one little madam fluttered in the leafy crotches of the twigs, fitting her body into them as if trying to see if they would make good nesting-sites; the while Sir Goldfinch sang and sang at the top of his

voice. Several white-crowned sparrows also came to eat seeds thrown out into the back yard. These handsome sparrows were not shy, but perched on the fence or the trees, and trilled their sweet refrains.

VI.

WINGED VOYAGERS.

THE subject of bird migration is one of absorbing interest, presenting many a perplexing problem to the student who cares to go into the philosophy of things. Why do the birds make these wonderful semi-annual pilgrimages, and whence came the original impulse, are questions often asked. With my limited opportunities for observation I cannot hope to shed much, if any, new light on the subject; yet it seems to me that some persons are disposed to invest it with more of an air of mystery than is really necessary. There are several patent, if not wholly satisfactory, reasons that may be assigned for the migrating impulse.

As this is not a scientific treatise, the writer will not be over-methodical in presenting these reasons, but will mention them in the order in which they occur to him. If we keep in mind the invariable succession of the seasons, and that this annual rotation has continued for ages, and if we also remember that all animals are dowered by their Creator with as much intelligence as is necessary for their well-being, much of the difficulty attaching to this subject will at once disappear. Birds, like their

human kinsmen, learn by experience and tutelage, and are also gifted with a sure instinct that amounts in many cases almost to reason. Take, for instance, this one fact. As the sun creeps northward in the spring, it pours a more and more intense heat upon the northern portions of the tropical and sub-tropical regions. The heat would soon become intolerable to certain birds, which have doubtless tried the experiment of spending the summer in equatorial countries; or if individuals now living have not tried it, perhaps some of their more or less remote ancestors have. That birds do make experiments is proved by the fact that several pets of mine will carefully "sample" a new kind of food offered them, and if they do not find it to their taste, will let it severely alone; nor is it any the less evident that young birds receive instruction from their elders. Thus the necessity of leaving the torrid regions as summer approaches may have been impressed on the migrating species from time immemorial.

Again, as spring advances, insect and vegetable life is revived in regions farther north, and this certainly must act as a magnet upon the birds, drawing them from point to point as the supply of food becomes scarce in the more southern localities. Then, let us suppose for a moment that all the birds did remain in the south through the summer; there would sooner or later be a bird famine in the land, for the supply of seeds and insects would soon be exhausted. Our feathered folk are simply obliged,

on account of the exigencies of food, to scatter themselves over a larger extent of country. They solve the problem of food supply and demand by these annual pilgrimages to the boreal lands of plenty.

To go a little more to the root of the matter, we may easily imagine how the migrating spirit got its first impulse and gradually became evolved into a habit of something like scientific precision. first birds lived in tropical climates, as was probably the case, some of them, as the food supply became exhausted, would be crowded northward, or would go of their own accord, and wherever they went they would find well-filled natural larders. Having once discovered that spring replenished the north with food, they would soon learn the desirability of making periodical journeys to that part of the globe. With this constant quest for food must also be coupled the instinctive desire of most birds for seclusion during the season of reproduction, — an instinct that would naturally drive them northward into the less thickly tenanted districts. But it may be objected that many species make long aerial voyages, passing over vast tracts of country to reach their chosen summer habitats in various parts of the north; and it is well known that the same individuals will return again and again, on the recurrence of spring, to the same locality. How are these facts to be accounted for?

If we accept the glacial theory — a hypothesis pretty well established now among scientific men-

we may readily conceive that, as the sun melted the ice at a greater distance in both directions from the equator, the 'habitable area of the earth's surface would gradually become enlarged. For the sake of vividness let us fancy ourselves living at that period of the world's history. Let us select a point north of the equator where a given pair of birds can live in summer. They find plenty of food there, and are comparatively undisturbed by other birds, and they therefore become attached to the place, most feathered folk having a strong "homing instinct." When winter comes, they and their progeny are forced to retire to the south; but they do not forget their pleasant summer haunt, their Mecca in the north, and therefore, at the approach of the following spring, they obey the home impulse and hie by easy stages to the beloved spot. Some of their number doubtless find it possible from time to time to push farther northward, and thus other breeding-haunts are selected. As the glacial accumulations melt away, the whole temperate region and a large part of the frigid zone become habitable. All this takes place by a very gradual process, requiring thousands of years, thus giving ample time for heredity to infuse the migratory habit into the nature of the birds. Every new generation would learn the route and other needful details from their predecessors, and thus the process would go on in an unending circuit year by year.

After the foregoing was written, my attention was called to the following quotation from Dr. J. A.

Allen's valuable paper on the "Origin of the Instinct of Migration in Birds." The extract is taken from an article by Frank M. Chapman, published in "The Auk" for January, 1894: "Nothing is doubtless more thoroughly established than that a warm temperate or sub-tropical climate prevailed down to the close of the Tertiary epoch, nearly to the Northern Pole, and that climate was previously everywhere so far equable that the necessity for migration can hardly be supposed to have existed. With the later refrigeration of the northern regions, bird life must have been crowded thence toward the tropics, and the struggle for life thereby greatly intensified. The less yielding forms may have become extinct; those less sensitive to climatic change would seek to extend the boundaries of their range by a slight removal northward during the milder intervals of summer, only, however, to be forced back again by the recurrence of winter. Such migration must have been at first 'incipient and gradual,' extending and strengthening as the cold wave receded, and opened up a wider area within which existence in summer became possible. What was at first a forced migration would become habitual, and through the heredity of habit give rise to that wonderful faculty which we term the instinct of migration." The reader's attention is also directed to Mr. Chapman's own article in the number of "The Auk" indicated.

It may be asked why some species remain in torrid and temperate climates, while others wing their way to the far north, even beyond the boundary of the Arctic Circle. My answer is, There is some Power that has wisely arranged all these matters, either by gradual development or by an original creative fiat. Every species is made to fit with nice precision into its peculiar niche in the creation. Perhaps Bryant suggests the true explanation in his poem entitled "To a Waterfowl":—

"There is a Power whose care
Teaches thy way along that pathless coast,
The desert and illimitable air,
Lone wandering, but not lost."

This may seem like begging the question; yet, to my mind, it is impossible to develop a philosophy of the universe without assuming an original creative Intelligence. True, the laws of evolution will account for many of the details, and birds, like men, are empowered in a large measure to work out their own destiny; but somewhere there must be a Power that has infused into Nature all these wonderful potentialities of development. Involution must precede evolution.

But this is speculation. Account for them as we may, the facts are evident. Within the circle of my own observation there is abundant proof of this varied but wise adaptation in Nature. There, for example, is the tiny golden-crested kinglet, which remains here all winter, no matter how severe the weather, and seems to be the embodiment of good cheer; whereas the brown thrasher, a bird many times as large, would be likely to perish in the first snow-squall. Then, when spring arrives, Master Kinglet hies to

the north for the breeding-season, while Monsieur Thrasher comes up from the south and becomes my all-summer intimate.

Another matter of intense interest concerning bird migration is that the migrants which winter farthest north are, as a rule, the first to arrive in the spring at their summer homes or vernal feeding-grounds. For instance, in the latter part of March or the beginning of April, while the thrashers, cat-birds, and others which winter in our Southern States, are arriving in New England, New York, Pennsylvania, and Ohio, the warbler army, which spends the winter in the West Indies, Yucatan, and Central America, is just crossing over from those countries to the southern borders of the United States.

When autumn comes, experience has taught the migrants that their only safety lies in making their way to the south before cold weather sets in; for many of them certainly do start on this voyage long before winter drives them from their northern haunts. In my opinion, they are gifted with sufficient reason—call it instinct, if you like—to do this, and I do not think they are moved by an uncontrollable impulse which acts upon them as if they were mere automata.

Portions of the migrating army often overlap. For example, the juncos and tree-sparrows are winter residents in my neighborhood, but very frequently they remain here a month or more after the earliest arrivals from the south. Presently, however, they grow nervous, flit about uneasily,

trill little snatches of song, inure themselves to flight by longer or shorter excursions about the country, and then join the northward procession en route for their breeding-haunts in British America. With regret I bid them adieu, but find compensation in the knowledge that their places will be supplied by a brilliant company of summer residents.

One of the strangest features of migration is the fact that a bird will sometimes make the voyage from north to south, and vice versa — or a part of the voyage — alone, at least as far as companionship with individuals of its own kind is concerned. Whether this is done advertently or inadvertently I am unable to say, but the fact cannot be disputed. In the spring of 1892, as noted in another chapter, a hooded warbler was flitting about a gravel bank in a wooded hollow, and although I scoured the country for miles around day after day, I never met another bird of this species. The little Apollo in feathers was so gentle and familiar that surely his mates would not have escaped my notice had there been any in the neighborhood. Why he preferred to travel alone, or in company with other species rather than his own kin, might be an interesting problem in avian psychology. A little farther down the glen a single mourning warbler was also seen at almost the same date. His companions had probably wished him bon voyage, and left him to strike out in an independent course through the trackless ocean of air.

That the army of migrants travel mostly by night is a well-known fact that can be verified by any one who will stand out-of-doors and listen to their chirping overhead. They seem to move in loose flocks, for there are intervals of complete silence, followed by a promiscuous chirping from many throats. Nor are these nocturnal calls all uttered by a single species, but usually a number of species seem to be travelling in company. One might say, therefore, that the feathered army moves in squads. As they travel in the dark, very little can be said about their flight; but every student has found species of birds in an early morning ramble which he could not find anywhere on the previous day, proving that they must have arrived in the night. Here is a single excerpt — many might be given — from my note-book: "On the third of March, 1894, I took a long stroll into the country, remaining in the fields until dusk; not a single meadow-lark was to be seen or heard. daybreak next morning, however, the shrill whistle of I know not how many larks rose like musical incense from the fields and commons in the rear of my house. Depend upon it, had these lavish minstrels been in the neighborhood during the previous afternoon, they would not have escaped my attention, for they could not have kept their music in their larynxes, not they! There is a cog in Nature's machinery lost if the meadow-larks are silent for a half day in the spring."

In 1885 Mr. William Brewster, the well-known ornithologist, made some intensely interesting dis-

coveries on the nocturnal flight of migrants, at Point Lepreaux Lighthouse, New Brunswick. The principal lantern, which was in the top of the tower, cast a light that could be seen fifteen miles away in clear weather. Even on dark and foggy nights this lantern would throw out a strong light to such a distance that a bird coming into the lighted area could readily be seen. On stormy nights the lighthouse seemed to possess a fatal attraction for the lost and rain-beaten birds, which would fly toward it and often dash against the glass, the roof, and other portions of the tower with such force that they fell dead or disabled. Mr. Brewster could see them approaching in the prism of light, some dashing themselves with fatal effect against the tower, but more, fortunately, turning aside or gliding upward over the roof, and then pressing on toward the west with incessant chirping. During rainy weather a larger proportion would strike the brilliant obstruction.

It is interesting to notice that different species composed the companies that passed the lighthouse. For instance, on the night of September first, seven different species of warblers and one red-eyed vireo were killed or disabled, and one Traill's flycatcher entered the mouth of the ventilator, and came down through it into the lantern. A few evenings later, about forty per cent of the specimens identified were Maryland yellow-throats, forty per cent more redeyed vireos, and the remaining twenty per cent were made up of two kinds of thrushes and six kinds

of warblers. These figures are given to show the heterogeneous composition of the migrant army.

Mr. Brewster also found that no birds came about the lantern except on densely cloudy or foggy nights, and that they came in the greatest numbers when the first hour or two of the evening had been clear and was succeeded by fog or storm. These data would seem to prove that the birds began their nocturnal journey with the expectation of having pleasant weather, and when the fog or storm rose later in the evening, they flew lower and got bewildered by the glare of the lighthouse.

Many theories of bird migration have been proposed and argued at length, but, on the whole, I incline to Mr. Brewster's theory that the old birds, having learned the advantage of these semi-annual expeditions, and having also determined the route by means of certain landmarks, act as aerial pilots to the army of young birds to whom the way is still unknown. Mountain ranges, river valleys, coast lines, and sheets of landlocked water doubtless serve the purpose of guide-posts to these airy travellers. Much as has been written on the subject, however, there still remains a large field for original research.

VII.

PLUMAGE OF YOUNG BIRDS.

T is surprising what odd and variegated costumes are sometimes worn by the juvenile members of the bird community. Frequently their attire is so different from that of their elders that even the expert ornithologist may be sorely puzzled to determine the category to which they belong; yet there are usually some characteristic markings, however obscure, by which their places in the avian system may be fixed. As a rule, the plumage of young birds is more striped and mottled than that of mature specimens, Nature playing some odd pranks of colormixing in tiding a bird over from callow infancy to full-fledged life. Fashion plates in the world of bantlings would be of little account, as no fixed patterns are followed.

Some parts of the growing bird's plumage change to the normal color sooner than others. I remember a young male indigo bird that I saw in October, whose garb, just after fledging, must have been a warm brown almost like that of the adult female; but now he had cast off a part of his infantile robes, and put on in their stead the cerulean of his male parent; his tail, rump, and the base of his wings

were blue, while the rest of his plumage was brown. He made a unique and pretty picture as he sat atilt on a blackberry stem, asking me with loud *Tsips* to admire his quaint toilet. Early in the spring I have seen indigo birds in whose plumage the tints were quite differently blended and arranged.

What a party-colored suit the young bluebird wears! His breast, instead of being plain brick-red as in the case of the adult bird, is profusely striped with dark brown on a background of soiled white; and his upper parts, in lieu of the warm azure of riper years, are a lustrous brown curiously mottled with tear-shaped blocks of white; while his wings and tail have already assumed the normal blue of this species. In the days of his youth the chipping-sparrow also dons a striped vest, so that, if it were not for his smaller size, it would be difficult to distinguish him from his relative, the grass-finch.

My admiration was especially stirred, one midsummer day, by the dainty appearance of a small coterie of bush-sparrows flitting about on a railroad which I was pursuing on foot; a large patch on their wings was of a dark, glossy brown tint, extremely pretty, and looking precisely as if it had been painted by the deft hand of an artist. Their under parts were variously streaked with white and dusk. At first I scarcely recognized my familiar little sylvan friends; but their intimacy with several adult specimens, as well as several well-known diagnostic markings, settled the question of their identity beyond a doubt.

Not every person is aware that the common redheaded woodpecker is no red-head at all during the first summer of his buoyant young life, but a blackhead instead, or, rather, his head and neck are very dark gray. However, one day in September I was delighted and amused to find an adolescent woodpecker whose head and neck were beginning to turn quite reddish, flecked everywhere with white, giving him a decidedly picturesque appearance as he scuddled up an oblique fence-stake. Of course the red-head is always sui generis, but in this case he seemed to be more so than usual. Nearly all the woodpeckers - the downy, the hairy, and the golden-winged - are devoid of the red spots on their heads, while young, to prevent them, I suppose, from becoming vain.

Sometimes an entirely foreign tint is introduced into the plumage of the young bird during his transition state. One day I was surprised to observe a decidedly bluish cast on the striped breast of a young towhee bunting, which was all the more curious because there is no blue whatever in the plumage of either the adult male or female. But the most curious freak of Nature's dyeing I have ever seen in the bird world was in the case of a young scarlet tanager, whose body, including the wings, was completely girded with a band of white, the border of which was quite irregular. As every observer knows, the only colors visible in the adult male's plumage are black and scarlet; still, when the scarlet feathers are pushed aside, they show

white underneath, and that may account for the albino quality of this specimen.

When he is first fledged, the pattern of the young cardinal grossbeak's plumage very much resembles that of his mother; but soon the bright red of his full dress begins to peep here and there through the grayish-olive of his kilts and trousers, so to speak, making him look as if he had been meddling with a keg of red paint and had splashed himself liberally with it. By and by there is a very odd blending of tints in his suit. Scarcely less curious is the garb of the young white-crowned sparrow; his whole head is black or blackish-brown, except a tiny speck of white in the centre of the crown, gleaming like a diamond in its dark setting. In the adult bird the whole crown is a glistening white, bordered on each side by a black band, which circles about on the forehead and separates the crown-piece from the white superciliary line.

Some of the warblers are scarcely recognizable in their juvenile attire. For example, the young blackpoll, bay-breasted, and chestnut-sided warblers bear little, if any, resemblance to their parents, whose diversified nuptial robes make our woodlands radiant in the spring. The young are quite tame in their soiled olive plumes, and look so much alike that the ornithologist is often at his wits' end to tell them apart. Were it not for the yellow rumps of the magnolia and myrtle warblers when young, one would scarcely know them from a dozen other species as they pursue their journey southward in

the autumn. The Maryland yellow-throat does not deign to wear his black mask until he is about eight months old, and the boy redstart contents himself with his mamma's style of dress until he returns in the spring from his sojourn in the south, and does not seem to be ashamed to be tied to her apronstring. And there is that natty little dandy, the ruby-crowned kinglet—it is said, on good authority, that he must be two years old before he is entitled to wear the ruby gem in his forehead; which must be a sore deprivation for this little aristocrat in feathers. Perhaps in kingletdom a bird does not become of age until he is two years old.

Thus it will be seen that the study of ornithology is made more difficult, and at the same time more interesting, by this change of toilet among the birds,—more difficult, because the observer must learn to identify the birds in their youthful as well as in their adult plumage; and more interesting, because of the greater variety thus given to this branch of scientific inquiry.

VIII.

NEST-HUNTING.

OTHING in Nature is more pregnant with suggestion than the nest of a bird. The story of one of these deftly woven dwellings in the woods, if fully written, might prove almost as weird and romantic as the history of a castle on the Rhine. What madrigals, what pæans, have been sung, and what victories celebrated, from the time the first fibres were braided until the chirping nestlings were able to shift for themselves! And, alas, how many fond hopes have perished as well! No doubt the ruses and subterfuges employed to elude cunning foes or ward off their murderous attacks, would fill a volume of valuable information on military tactics. One might write comedies or tragedies about the nest-life of the birds that would be no less interesting than realistic. More than that, the study of these wonderful fabrics would virtually be a study of the psychology of the feathered artisans, each nest being an index of a special type of mind and a measure of the bird's mental resources. William Hamilton Gibson has well said: "To know the nidification and nest-life of a bird is to get the

cream of its history;" than which nothing could be truer or more aptly expressed.

No wonder the poets have so often been thrown into lyrical moods over the homesteads of the birds! Mrs. Margaret E. Sangster's poem on "The Building of the Nest" is perhaps not unfamiliar to most readers; but one stanza is so graceful and rhythmical that it begs for quotation at this point:—

"They 'll come again to the apple-tree—
Robin and all the rest—
When the orchard branches are fair to see
In the snow of blossoms dressed,
And the prettiest thing in the world will be
The building of the nest."

In one of my rambles I found an abandoned towhee bunting's nest containing three eggs, and could not help speculating as to the cause of its desertion. Might there have been a quarrel between husband and wife, making a separation necessary? I am loath to believe it, although, if certain acute observers are correct, divorce is not wholly unknown in the bird community. But in this case I am inclined to think that some enemy had destroyed the female, for a male flitted about in the bushes, calling a good deal and singing at intervals, and there seemed to be a plaintive note in his song, as if he might be chanting an elegy. At all events, the pair that built the nest had had their tragedy.

Every bird-student must admit that his quest for nests often ends in disappointment, because many

birds are adepts at concealment, while others build in places where you would not think of looking. However, I have had but little difficulty in finding the nests of the brown thrasher, which erects an inartistic platform of sticks, bound together by a few grass fibres, and thus is easily descried in the bushes, where it is usually placed. Early in the spring I found the nest of a pair of these birds in a thick clump of bushes near the edge of a woodland, and resolved to keep watch over it until the young family had left their home. The parent birds in this case were very solicitous for the safety of their young. Every time I called they set up a pitiful to-do, which invariably made me hurry away, after a timid peep into the cradle. There is as much difference in the temperaments of birds of the same species as there is among persons belonging to the same family. While the thrashers in question seemed to be terrified at my presence, others driven from their nests displayed little or no fear, but sat quietly on a perch near by and allowed me to examine their domicile without so much as a chirp.

The brown thrasher has surprised me by the variety of places he selects for building his log house. Wilson Flagg in his book, "A Year with the Birds," says that this bird usually builds on the ground; and Mr. Eldridge E. Fish, who writes pleasantly about the birds of western New York, bears similar testimony. Perhaps thrasher-fashion in New England and New York differs from

thrasher-fashion in Ohio (in which locality the birds display the best taste I will not say); for during the spring of 1890 I found but two nests on the ground, and was surprised to find even them, while at least fifteen were discovered in other places. Most of them were on low thorn-bushes, but not all. One was built in a brush-heap, one on a pile of "cord-wood," another on a small stump screened by some bushes, and two on a rail fence. Of the last two, one was partly supported by poison-ivy vines and partly by a rail; the other was built entirely on a rail in a projecting corner of the fence.

The thrasher, as has been said, builds an artless platform of sticks that in some cases barely holds together long enough to answer the purpose for which it was intended. In this respect its habits differ from those of the wood-thrush, a bird that is very abundant and musical in my neighborhood. I have found many of the wood-thrush's nests, which are built in the crotches of small saplings in the thickest part of the woods, and are made almost as substantial as the adobe dwellings of the robin. The thrush does not use as much mortar as his redbreasted relative; otherwise there is a close resemblance between the nests of the two birds.

It was amusing to find pieces of newspaper bedizening the houses of the wood-thrushes so frequently, though it cannot be said that they showed the highest literary taste in their selections; for one or two of the fragments contained accounts of political caucuses. However, it would be too much to assume that the birds had read them, as many of us "humans" find such literature too deep for our comprehension. I shall neither eulogize nor stigmatize this favorite minstrel by calling him a politician, although if one were to regard his nesting-habits alone, he deserves that sobriquet quite as well as the white-eyed vireo.

That parasite among American birds, the female cow-bunting, audaciously spirits her eggs into the wood-thrush's nest, to be hatched with those that properly belong there, while she and her mate sit in the trees near by and whistle their taunting airs, and watch to see whether their dupe attends faithfully to the additional household cares imposed upon her. When the birds are hatched, the victim of this piece of imposture innocently feeds her foster children with the best tidbits she can find, spite of the fact that they may soon crowd her own offspring out of the nest-home. The wonder is that she does not discover the trick at once; for her eggs are deep blue, while the cow-bird's are white, speckled with ashy brown. Can the wood-thrush be color-blind?

About two miles from town, along the banks of a small creek, was the nest of that interesting little bird, the summer warbler,—a dainty structure, composed of downy material, and deftly lodged among the twigs of a sapling at the foot of a cliff. A cold spring gurgled from the rocks near by; the willows and buttonwood trees bent to the balmy breezes, and the tinkling of the brook mingled with the songs

of many birds. A place for day-dreams truly, and the summer warblers were the dryads and nymphs flitting through the realms of fancy. If all birds were as astute as the summer warbler, the race of cowbuntings would soon become extinct, or would soon have to change their methods of propagation, and go to rearing their own families. Our little strategist, when she comes home and finds a cowbird's egg dropped into her nest, begins forthwith to add another story, and thus leaves the interloper in the cellar, with a floor between it and her warm breast. is a genuine case of "being left out in the cold." I have found several of these exquisite towers that were three stories high, on the top of which the little bird sat perched like a goddess on the summit of Olympus. (My simile may seem a trifle farfetched, but I shall let it stand.) But why, you dear little sprite, do you not merely pitch the offensive egg out of the nest, instead of going to all the trouble of building a loft? No answer, save an untranslatable trill, comes from the throat of the dainty minstrel.1

Some years ago I witnessed a curious bit of birdbehavior that I have never seen described in any of the numerous books on ornithology which I have

¹ Mr. Eldridge E. Fish, to whom reference has already been made, after reading this article, which first appeared in a weekly paper, suggested in a letter that the little warbler could not well remove the intruded egg without breaking it, which would spoil her nest altogether. Hence she simply adds another story to her dwelling. This is doubtless the true explanation.

consulted. I make reference to it here for the first time. I was strolling along the banks of a broad river in northern Indiana on the first of June, when a warm, steady rain set in. How the birds contrive to keep their eggs and nestlings dry during a shower had long been an enigma to me, and now was my time to find out. Knowing where a summer warbler had built her nest in some bushes, I cautiously approached, and then stood looking down on the bird before me, which showed no disposition to leave her progeny to the mercy of the elements. It was a picture indeed! The darling little mother - how can one help using an endearing term! - sat with her wings and tail spread out gracefully over the rim of the nest all the way round, thus making a perfect umbrella of her lithe, dainty body.

Nothing could differ more from the airy out-door nest of the summer warbler than the dark subterranean caverns of the swallows in the bank of the creek. One day, while sauntering along a stream, I noticed a hole in the opposite bank. I passed on, but on second thought turned to look at the excavation a little more closely, when a swallow darted like an arrow into it, and in a few moments made as quick an exit. Wading across the creek, I thrust my walking-stick, which was almost four feet long, into the orifice over its entire length without reaching the end! Why a bird, so neat in attire and so agile on the wing, should build her nest in a dark Erebus like that, is a Sphinx's riddle that must be left to wiser heads to solve.

What a contrast is the open-air hammock of the Baltimore oriole, swinging from the flexible branches of a buttonwood tree a little farther up the stream! How softly the chirping brood within is rocked by the breezes that sweep down from the slopes, laden with the odor of clover blossoms! Somewhere near there must be a warbling vireo's nest, for one of these birds is singing in the trees; but my eyes are not sharp enough to descry its pensile domicile.

On my way home, on the top of a hill, I step casually up to a small thorn-bush, whose branches and leaves are thickly matted together, and, as I push the foliage aside, there is a flutter of wings, followed by a rapid chirping, and a little bird flits away, pretending to be seriously wounded. It is a bush-sparrow. Cosily placed beneath the leafy roof among the thick boughs is the procreant cradle. What could be more dainty! A little nest, woven of fine grass-fibres, deftly lined with hair, and containing four speckled eggs, real gems. How "beautiful for situation" is this tiny cottage on the hill! Here the feathered poets may sit on their leafy verandas, look down into the green valleys, and compose verses on the pastoral attractions of Nature. One is almost tempted to spin a romance about the happy couple.

On returning, one day, from an ornithological jaunt, I met my friend, the young farmer, who knows something about my furor for the birds. There was a knowing smile on his sunburned face. "I know where there's a killdeer's nest," he said;

"would you like to see it?" Tired out as I was with my long walk, I exclaimed: "Yes, sir! I'll follow you to the end of the world to see a plover's nest." The sentence was added merely by way of mild (not wild) hyperbole. A shallow pit in the open corn-field, lined with a few chips and pebbles, constituted the nest of the plover, not having so much as a spear of grass to protect it from rain and storm. It contained one egg and a callow youngster, the egg being quite large at one end and pointed at the other, which gave it a very uncouth shape. My young friend informed me that there had been five eggs when he found the nest, all lying with their acute ends toward the centre; the next time he went to look there were only four, then three, and finally only two. Evidently the parent birds were having a serious time guarding their homestead from marauders. On going to the place some days later, I found both the egg and the baby plover gone, and I could only hope that no mischance had befallen them.

Strange as it may seem, the winter is a favorable season for nest-hunting. True, the birds are not then at home, to speak with a good deal of license, or engaged in rearing families; but the deserted structures may be more readily found after the leaves have fallen from the trees and bushes. As I stroll through the woods or the marsh on a winter day, scores of nests that escaped my eye during the summer are to be seen. Especially is this the case after a snowfall, for the nests catch the descending

flakes which are piled up in them in downy mounds, and thus attract the attention of the observer. I have often felt inclined to heap upon myself the most caustic epithets for having passed again and again, during the breeding-season, so near the nest of an interesting bird without knowing of its existence until winter's frosts had stripped the coppice of its leaves, and have resolved as often that the next season shall not find me napping.

In the marsh which is one of my favorite trudging-grounds, I made a quaint discovery some winters ago, which has raised more than one query in my mind. One day, after a snowfall, I found many deserted nests in the thickets. Brushing the snow out of them revealed, in the bottom of each basket, a small pile of the seeds and broken shells of wildrose and thorn berries. Why had the birds put them there—if it was the birds? Perhaps the winter birds, when they arrived in the autumn, found these old nests good storehouses in which to lay by their winter supplies. I have never seen the birds feeding on them, but, as spring approached, the berry seeds had nearly all disappeared.

Come with me, for I know a pleasant, half-cloistered field of clover which is the habitat of a number of charming little birds. Just where it is shall remain one of my semi-sylvan secrets, for one must not betray all the confidences of one's feathered intimates. The field cuts a right angle in a woodland, by which it is, therefore, bounded on the east and north, while toward the west and south the

undulating country stretches away like a billowy sea of green. The woods themselves, on the sides adjacent to the field, are hemmed and fringed with a thick growth of saplings, bushes, and brambles, where the feathered husbands sit and hymn their joy by the hour to their little mates hugging their nests in the clover and the copse. It is a quiet spot, — one of Nature's nunneries. Human dwellings may be seen in the distance; but it is seldom that any one, save a mooning rambler like myself, goes there to disturb the peace of the feathered tenants.

Here, one summer a few years ago, a pair of those wary birds the yellow-breasted chats built a nest, which they placed snugly in the blackberry bushes that bordered and partly hid the rail-fence. I kept close reconnoissance on this little homestead until the nascent inmates were about half-fledged, when, to my dismay, every one of them was kidnapped by some despicable nest-robber. My own sorrow was equalled only by the inexpressible anguish of the bereaved parents. To add to my troubles, a nestful of young indigo-birds came to grief in the same way. There must be, it seems, a system of brigandage in every realm, be it human or faunal.

A pair of bush-sparrows, however, were more fortunate in their brood-rearing. One day, while standing near the fence, I noticed a bush-sparrow, bearing an insect in her bill, dart down into the clover, a short distance over in the field. I walked to the spot, when she flew up with an uneasy chirp, proclaiming a secret that she could not keep. There on the grass, sure enough, was her nestful of little ones. Some accident must have befallen the fibrous cot, for the weeds and clover were broken down and trampled flat all around it, so that it sat loosely on the ground, without even a blade of grass to shelter it. Fearing that buccaneers in the shape of jays or hawks might rob the nest, I broke off a number of weeds and made a sort of thatched roof over it; that would also protect the panting infants from the sun, which was beating down like a furnace. Then I took my stand a few rods away, to see what the old birds would do. Erelong both the papa and mamma came with billsome morsels in their mouths, and, after fluttering about uneasily for a few minutes, darted down to the nest and fed their young. Of course, they first had to peep, and peer, and cant their dainty heads this way and that, to examine the roof I had improvised for the nest, wondering, no doubt, what kind of a bungling architect had been at work there; but finally they seemed to think all was well. Perhaps in their hearts they thanked me for my thoughtful care.

A day or two later I called again, even at the risk of coming *de trop*. The weeds arched over the bird crib at my former visit having withered, I made them another green roof, sheltering them as cosily as I could and leaving a small opening at the side for an entrance. After an absence of a few minutes I crept surreptitiously back to the enchanted spot, — for it drew me like a loadstone, —and there sat the

trim little mother on her cradle, covering her children to keep them warm, her reddish-brown tail daintily reaching out through the doorway. She did not fly up as I bent lovingly over her, and presently I stole away, desirous not to disturb her.

The bush-sparrow is a captivating little bird, graceful of form and sweet of voice, singing his cheerful trills from early spring until far past midsummer. The song makes me think of a silver thread running through a woof of golden sunshine, carried forward by a swinging shuttle of pearl. I think the figure is not far-fetched. He is quite partial to a dense little thorn-bush for a nesting-place, often concealing his grassy cottage so cunningly that you must look sharply for it among the leaves and twigs, or it will escape your eye.

One of the neatest and prettiest denizens of my clover-field was the goldfinch. Wings of black and coat of bright yellow, he went bounding through the ether, rising and falling in graceful festoons of flight, in such a lightsome way he seemed to be rocking himself on the breeze. How jauntily he wore his tiny black cap, little exquisite of the field that he is, to whom I always go hat in hand! He deserves a monograph all to himself, but at this time I can spare him only a few paragraphs.

As a rule, the goldfinches prefer to build their nests in small trees, often selecting the maples along the suburban streets of the city. I was greatly surprised, therefore, to find a nest in my clover-field, where there were no trees at all. Noticing a

bird fly into a clump of blackberry bushes one day, I took it for a female indigo-bird. A nest was soon found woven very neatly and compactly, and having not only grass-fibres wrought into its structure, but also wool and thistle-down. A queer indigo-bird's nest, I mused. The wool in the cup was ruffled and loose, and taking it for a deserted homestead, I carelessly thrust my hand into it. The next moment I was sorry for the thoughtless act, for the material looked so fresh that I decided it must be an unfinished bird-cradle. I resolved to discover the owners, if possible. Two days later it was in the same condition. Had I driven away the little builders by laying defiling hands on the nest? I felt like a culprit, and waited a week before again venturing to visit the place, when, as I approached, a female goldfinch flew from the nest, uncovering five dainty white eggs, set like pearls in the bottom of the cup. A goldfinch's nest in a blackberry bush! That was a climax of surprises, in very truth.

On the same day, not far distant, another bush-sparrow's nest was found in some bushes, placed about three feet from the ground. In a few weeks there were babies five in the goldfinch's nest, and four in that of the bush-sparrow. Pray keep both nests in mind, remembering that the youngsters of both families were hatched on the same day. One evening at twilight I again stepped out to the clover-field. The mother goldfinch was sitting close on her nest, and did not stir as I came near. Then I touched her lightly with my cane. Still she remained

on her nest as if glued fast, only glaring at me with her wild, beady eyes. At length I softly laid my finger on her back, when she uttered a queer, half-scolding cry, and leaped up to the nest's rim, but did not fly. There she stood, turning her head and eying me keenly until I stole away, unwilling to forfeit her confidence and good-will. But when, on my way home, I paused a moment to look at the bush-sparrow's nest, the mother flitted away with a frightened chirp before I came within reach. She was not as confiding as her little neighbor, the goldfinch.

Now mark! On the fifteenth of August the young bush-sparrows had become so large and well developed that when, meaning no harm, I touched them gently with my finger, they flipped out of the nest like flashes of lightning. The infant goldfinches were not yet more than half fledged, and merely snuggled close to the bottom of the nest when I caressed them. The idea of flying was still remote from their little pates. These observations prove that young bush-sparrows develop much more rapidly than young goldfinches; yet, strange as it may seem, the goldfinch, when grown, flies much higher, if not more swiftly, than his little neighbor, and continues longer on the wing.

On the same day I sat down in the clover, a few rods from the goldfinch's nest, and kept close watch on both the old birds and their offspring for an hour and a half. The sun attacked me savagely with his red-hot arrows, and the sweat broke from every

pore, but I felt amply repaid for my vigil. During the first half-hour the parent birds ventured slyly to feed their bantlings twice. Then I crept closer, and waited an hour; but the parent birds were too shy to bring their hungry nestlings a single mouthful of food, choosing, it would seem, to let them suffer hunger rather than take risk themselves. The little things were almost famished, and behaved very quaintly. Every rustle of the leaves in the wind caused them to start up, crane out their necks, pry open their mouths as wide as they could, waddle awkwardly from side to side, and chirp for something to eat. How famished they were! They even seized one another's heads and tried to gulp one another down. The spectacle was just a little uncanny.

But, dear me! they were not as ignorant of the ways of the world as you might suppose. When I lightly tapped the stems of the bushes with my cane, instead of leaping up and opening their mouths as they were expected to do, they shrank down into the bottom of the nest, discerning at once the difference between those strokes on the bush and their parents' quiet approach or loving call. Something must have put them on their guard, and instilled feelings of fear into their palpitating bosoms. Perhaps it was that shy personage, the mother herself; for she would call admonishingly at intervals from the woods, *Ba-bie!* ba-bie! putting a pathetic accent on the second syllable. It was droll to see

the youngsters try to preen their feathers, they went about the performance so awkwardly.

On the seventeenth of the month one of the nestlings was missing, and no amount of looking for it in the thicket revealed any clew to its whereabouts. None of the remaining birds were ready to fly. Two days later they were still in the nest, although they had grown considerably since my last visit, so that one of them was almost crowded out of the circular trundle-bed. I could not resist the temptation to lift it in my hand, just to see how pretty it was and how it would act. It uttered a sharp cry of alarm, and sprang from my hand; but its wings were still so weak that it merely fluttered in an oblique direction to the ground. The third time I caught it, it sat contentedly on my palm, and allowed me to stroke its back, looking up at its captor with mingled wonder and trustfulness.

On the heads of all the nestlings a fine down protruded up through and above the feathers. The birds looked very knowingly out of their small coalblack eyes, but the cunning little things obstinately refused to open their mouths for me, entice them as I would; however, when I moved away some distance, and their mamma came with a tempting morsel, they sprang up instantly and gulped it down. Not so very unsophisticated, after all, for mere bantlings! On the morning of the twenty-sixth all the young finches had left the nest, and were perched in the bushes near by. I contrived to catch one of them

and hold him in my hand a few moments, to admire his dainty toilet and pretty dark eyes. Thus my brief study in comparative ornithology proved that the young goldfinches left the nest seven days after the young bush-sparrows, hatched at the same time, had taken wing.

IX.

MIDSUMMER MELODIES.

CEVERAL times has the statement been made in print that it is scarcely worth one's while to attempt to study the birds during the midsummer months, the reason alleged being that at that time they are silent and inactive, and their behavior devoid of special interest. Now, nothing ministers so gratefully to the pride of the original investigator as to prove untrue the theories that have been advanced in books and that are current among scientific men. During the summer of 1891 I resolved to discover for myself what the birds were doing, and so, spite of drought, heat, and mosquitoes, I visited the haunts of my winged companions at least every other day. The result was a surprise to myself, proving that the unwisest thing a naturalist can do is to lay down absolute canons of conduct for feathered folk.

It is just possible that physical stupor, induced by the extreme heat of summer, has caused some ornithologists to observe carelessly and listlessly, and for that reason they have supposed that the birds were as languid as themselves; but the wideawake student, who can brave heat and cold alike, will never find the feathered creation failing to repay the closest attention. Some birds are almost as active when the mercury is wrestling with the nineties as on the fairest day of May, and those are the ones to be studied in midsummer.

My special investigations began about the middle of July. It is true that at that time what are usually regarded as the songsters of the first class — the brown thrashers, wood-thrushes, cat-birds, and bobolinks — had gone into a conspiracy of silence, not a musical note coming from their throats, although some of them always remain in this latitude until far into September. But when the first-class minstrels are mute, one appreciates the minor vocalists all the more. Yet I must not omit to say that on the thirtieth of July I caught a fragment of a wood-thrush's song, the last I heard for the season.

Let me recall one day in particular. It was the tenth of August, and the weather was broiling, — hot enough to drive the thermometer into hysterics, just the day to see how the heat would affect the feathered tenants of the groves; and so, overcoming my physical inertia as best I could, I stalked to the woods in the afternoon in quest of bird lore. With the perspiration running from every pore, I trudged about for some time without seeing or hearing a single bird. Were the books correct, after all? Was I to be deprived of the pleasure of proving them in error? It began to appear as if such might be the case. Presently, however, as I pushed out into a gap at one side of the woods, an uneasy chirping in the clumps of bushes and brambles near

by sent a thrill of gladness through my veins. I felt intuitively that there were birds in abundance in the neighborhood, and my presentiment proved correct; for before my brief search was completed, I was permitted to record the songs of the indigo-bird, the cardinal grossbeak, the towhee bunting, the wood-pewee, the Baltimore oriole, and the black-capped chickadee; while, no sooner had I stepped out of the woods into the adjoining swamp, than the song-sparrow chimed merrily, "Oh, certainly, certainly, you must n't forget me-me-me! No-sirree, no-sirree!"

One of the most blithesome trillers of midsummer was the grass-finch, which sang his canticles until about the twelfth of August, when he suddenly took leave for parts unknown. It seemed to me he sang more vigorously in July than in May, for several times he prolonged his trill with such splendid musical effect as to make me rush out to the adjoining field to find a lark-sparrow. The black-throated bunting remained here almost as long, rasping his harsh notes until he also took his flight. I was somewhat disappointed in the meadow-larks, having heard but one note from their tuneful throats during August; but when September came, they resumed their shrill choruses, which lasted until November, increasing in vigor as the autumn advanced.

The robins were chary of their music, only two songs having been heard during August, one of them on the fourteenth. But the little bush-sparrow made ample compensation, chanting his pensive voluntaries almost every day at the border of the woods until about the twentieth of August. Still more lavish of his melody was the indigo-bird, which on several occasions was the only songster, besides the wood-pewee, heard during a long stroll through the woods. An irrepressible minstrel, he is the most cheery member of the midsummer chorus. My notes say that the Maryland yellow-throat was singing in splendid voice on the first of August, but I am positive I heard him later in the month, as he is one of our most rollicksome midsummer choralists. The goldfinch sang cheerily on the first, eighteenth, and nineteenth of August, and I cannot say how often in July and August I heard the loud refrain of the Carolina wren.

On the tenth, twelfth, fourteenth, eighteenth, and nineteenth of August, the Baltimore oriole piped cheerily, though he had partly doffed his splendid vernal robes, and was beginning to don his modest autumnal garb. The cardinal bird fluted frequently during July and August, and, besides, regaled me with a vocal performance on the third of September. The last record I have of the towhee bunting's trill is the tenth of August; but before that date he was quite lavish of his music. On many of my tramps to the woods the sad minor whistle of the black-capped chickadee pierced the solitudes, making one dream of one's boyhood days,—

[&]quot;When birds and flowers and I were happy peers," as Lowell would phrase it.

One of my surprises was a warbler's trill on the twelfth of August. The little tantalizer kept itself so far up in the trees as to baffle all attempts at identification, but I am disposed to think it was a cerulean warbler. On the nineteenth of August two warbler trills, one of them, I feel almost sure, from the throat of the chestnut-sided warbler, were heard, which is all the more novel because these birds are not residents, but only migrants in this latitude. I should have felt amply repaid for all my efforts, had I proved nothing more than that warblers will sometimes regale one with an aftermath of song in the dog days.

The most persistent minstrel of the midsummer orchestra was the wood-pewee, — the only bird whose song I heard on every excursion to the woods during July and August; and even when September came, there seemed to be little abatement in his musical industry. All the year round, the songsparrow is the most prolific lyrist of my acquaintance, but in midsummer he is distanced by his sylvan neighbor, the wood-pewee. During my walks on the twenty-ninth and thirty-first of August the pewee's was the only song heard.

Then, he does not confine himself wholly to his ordinary song, *Phe-e-w-e-e* or *Phe-e-e-o-r-e-e-e*, for one day in July he twittered a quaint medley in a low, caressing tone, as if singing a lullaby to his nestlings. At first I could not tell what bird was the author of the new style of melody, but presently the song glided sweetly into the well-known

Pe-e-w-e-e. On another occasion I was charmed by the vocal rehearsals of a young pewee. His youth was evident from the fact that he twinkled his wings and coaxed for food from the mother bird, who rewarded his vocal efforts by feeding him. The song was extremely beautiful, spite of the crudeness of its execution; a clear continuous strain, repeated quite loudly, with here and there a partially successful attempt to emit the ordinary pewee notes. Occasionally the parent bird would respond, as if setting the ambitious novice a musical copy, and then he would make a heroic effort to pipe the notes he had just heard, and several times he succeeded admirably. He had a voice of excellent quality, but did not have it under perfect control; still, the immature song was so innocent, so naïve and striking, that it was a temptation to wish he would never learn to sing otherwise.

Permit me to add, in conclusion, that, while the birds are not equally musical or plentiful all the year round, yet there is never a time when their behavior is not worth careful attention. Moreover, midsummer is the most favorable time for the study of the quaint behavior and varied plumage of young birds, — a theme connected with our avian fauna that merits more consideration than it has yet received.

X.

WHERE BIRDS ROOST.

NE winter evening found me tramping through a swamp not far from my home, listening to the dulcet trills of the song-sparrows, which had recently returned from a brief visit to a more southern latitude. There was no snow on the ground, and the day had been pleasant; but, as evening approached, the west wind blew raw across the fields. For some reason which I cannot now recall, an impulse seized me to clamber over the fence into the adjacent meadow, where I stalked about somewhat aimlessly for a minute or two, little thinking that I was on the eve of a discovery, — one that was destined to lead me into a delightful field of investigation.

The ground was rather soggy, but a pair of tall rubber boots make one indifferent to mire and mud. The dusk was now gathering rapidly, and it was time for most birds to go to bed. I soon found, too, that they were going to bed, and, moreover, were taking lodgings in the most unexpected quarters. Imagine my surprise when, as I trudged about, the little tree-sparrows, which are winter

residents in my neighborhood, flew up here and there out of the deep grass. They seemed to be hidden somewhere until I came near, and then they would suddenly dart up as if they had emerged from a hole in the ground.

This unexpected behavior led me to investigate; and I soon found that in many places there were cosey apartments hollowed out under the long, thick tufts of marsh grass, with neat entrances at one side like the door of an Eskimo hut. These hollows gave ample evidence of having been occupied by the birds, so that there could be no doubt about their being bird bedrooms. Very frequently they were burrowed in the sides of the mounds of sod raised by the winter frosts, and were thus lifted above the intervening hollows, which contained ice-cold water. In every case the overhanging grass made a thatched roof to carry off the rain.

I do not mean to say that these little dugouts were made by the birds themselves. Perhaps they were, but it is more probable that they had been scooped out the previous summer by field-mice, and had only been appropriated for sleeping-apartments by the sparrows. However that may be, they were exceedingly cunning and cosey; and soft must have been the slumbers of the feathered occupants while the wintry blasts howled unharming above them.

Prior to that discovery I had supposed, with most people, that all birds roost in trees and bushes. Later researches have proved how wide of the truth one's unverified hypotheses may be. A week or so

afterward, while strolling one evening at dusk through a favorite timber-belt, I noticed the snowbirds, or juncos, darting up from the leaves and bushes and small brush-heaps, beneath which they had found dainty little coverts from the storm. many places crooked twigs and branches, covered with leaves, lay on the ground, leaving underneath small spaces overarched and sheltered, and into these cosey nooks the juncos had crept for the night. No enemies, at least in winter, would find them there, and their hiding-places were snug and warm. Long after dark I lingered in the woods, and everywhere startled the snow-birds from their leafy couches. At one place a whole colony of them had taken lodgings. When my passing frightened them away, they flew through the darkness into the neighboring trees. After waiting at some distance for several minutes, I returned to the spot, and found that some of the birds had gone back to their bedrooms on the ground.

In my nocturnal prowlings through the fields and lowlands, I have frequently frightened the meadow-larks from the grass, and that long before nest-building or incubation had begun. Of course, they were recognized by their nervous alarm-calls, as well as by the peculiar sound of their fluttering wings. What surprises me beyond measure is that they so often select low, boggy places for their roosts, instead of the dry pleasant upland slopes. But there is no accounting for tastes in the bird world. The grass-finches and lark-sparrows, like their relatives just

mentioned, seek little hollows in the ground for bed-chambers, usually sheltered by grass tufts.

Long before day, one April morning, I made my way to the marsh so frequently mentioned in this volume. The moon was shining brightly in the southern sky. Early as it was — for as yet there was no sign of daybreak — the silvery trills of the song-sparrows rose from the bushes like a votive offering to the Queen of Night. From one part of the swamp a sweet song would ring out on the moonlit air, and would at once be taken up by another songster not far away. Then another would chime in, and another, until the whole enclosure was filled with the antiphonal melody. A silence would then fall upon the marsh like a dream-spirit, to be broken soon by another outburst of minstrelsy; and thus the nocturne continued until day broke, and it merged into the glad matin service.

But my object is to tell about bird roosts rather than about bird music. When I reached the farther end of the marsh, several sparrow songs came up from the ground. I walked with a tentative purpose toward a spot whence a song came, when the little triller sprang up affrighted. The same experiment with a number of other songsters brought a like result in each case, proving beyond doubt, I think, that at least some of the songsparrows roost on the ground, and begin their matins before they rise from their couches, so anxious are they to put in a full day of song.

On the same morning — it was still before day-

break — a bevy of red-winged blackbirds, which had been roosting in the long grass, flew up with vociferous cries and protests at the rude awakening I had given them, just when they were enjoying their morning nap. Blame them who will for making loud ado, for there are many people who would do the same under similar provocation. Thus it will be seen that many birds sleep on the ground. My investigations lead me to this conclusion: As a rule, those birds which nest on or near the ground, and spend a considerable portion of their time in the grass, like the meadow-larks and song-sparrows, roost on the ground, while others find bushes and trees more to their taste. Still, there are exceptions to this rule; for on several occasions, while bent on my nocturnal prowlings, I have driven the turtle-dove from the ground, although this bird usually roosts in the thorn-trees and willows.1

The robins choose thick trees and even wild rose-bushes for roosts. In the apple-trees and pines of a neighbor's yard across the fields these birds find sleeping-apartments early in the spring, before nest-building is begun, for a perfect deluge of robin music often pours from that locality, both morning and evening.

The white-throats, wood-sparrows, and brown thrashers make use of the thick thorn-trees of the marsh for lodgings. They flutter about in sore

¹ This is, after all, no exception, for I have since found a number of turtle-doves' nests on the ground.

dismay as I approach, until I start back, lest they should impale themselves on the sharp thorns. Sometimes the thrasher ensconces himself for the night in the brush-heaps which the wood-choppers have made on the slopes, making his presence known by his peculiar way of scolding at my officious intrusion.

One cannot help admiring the wise forethought displayed by many birds in creeping into the thick thorn-bushes at night, where they may sleep without fear of attack from their nocturnal foe, the owl. Full well they seem to know he cannot force his bulky form through the thick network of branch and thorn. How he must gnash his teeth with rage—if owls ever do that—when he espies his coveted prey sleeping peacefully just beyond the reach of his talons! Still, it sometimes happens that even a small bird ventures into too close quarters in these terrible prickly bushes; for I once found a dead sparrow completely wedged in among the fierce thorns, where it had evidently been caught in such a way as to prevent its escape.

Something over a year after the preceding facts were published, I was seized with a whim to resume my investigations on bird roosts. One of my nocturnal rambles seems to be deserving of somewhat minute description. It was a delightful evening of early spring, with a warm westerly breeze stirring the bursting leaves. The sun had set, and the dusk was falling over fields and woods. The bright moon, a little more than half full,

lengthened out the gloaming and added many precious minutes to the singing hours of the birds. Such a woodland chorus as I was permitted to listen to that evening! It was a rare privilege. How the wood-thrushes vied with the towhee buntings! Which would sing the latest? That seemed to be the question. At length there were several moments of silence, and I supposed all the birds had gone to sleep, when a white-throated sparrow and a wood-pewee struck in with their sweet strains; and so the chorus continued until it was really night. The wood-thrushes, I think, got in the last note of the twilight serenade.

Before it had become quite dark, I espied a wood-thrush sitting in the fork of a dogwood-tree, looking at me in a startled way; but she did not fly. I walked off some distance, remained awhile, and then returned, to find her still in her place. Then I strolled about until night had fully come; the moon shone brightly, so that it was not dark. When I went back to the dogwood-tree, the speckled breast of the thrush was still visible in the fork which she had chosen for her bed-chamber, and I wished her pleasant dreams.

While stalking about, I startled another wood-thrush, which had selected a loose brush-heap on the ground instead of a sapling or tree for a roost. The indigo-birds and bush-sparrows flew up from the blackberry bushes as I pushed my way through them. Several times the towhee buntings leaped scolding out of bed, having selected brush-heaps,

or dead branches lying on the ground, for roosting-places.

A discovery was also made in regard to the sleeping-apartments of the red-headed woodpecker. As the dusk was gathering, a red-head dashed in front of me into the border of the woods, alighting on a sapling stem, and then began to shuffle upward. toward a hole plainly visible from where I sat; but just as he reached the hole, another red-head appeared with a challenging air on the inside of the cavity, and red-head number one darted away with a cry of alarm. Now was my time to discover, if possible, where red-head number two would roost. So I kept a close watch on the cavity, waiting about, as previously said, until nightfall, and then, keeping my eye on the hole, so that the bird could not fly out without being seen, I made my way to the sapling. Intently watching the hole with my glass, I tapped the stem of the tree with my heel, when, in the moonlight, a red head and long, black beak were protruded from the opening above. The woodpecker was within, that much was proved; and when I had beaten against the tree, he had sprung up to the orifice to see who was thus impolitely disturbing his evening slumbers. He turned his head sidewise, and looked down at me with his keen beady eyes, but although I tapped against the tree again and again, he would not leave the cavity. There can be no doubt that it was his bedroom, - that cosey apartment in the sapling, - for it was still too early in the season for the bird to begin nesting, as he had

arrived only two or three days before from his winter residence in the south. Very likely most woodpeckers roost in the cavities which they hew in trees, for I do not see why the one into whose private affairs I pried that evening should have been an exception. He most probably was only following the customs of his tribe from time immemorial.¹

A number of experiments made with young birds purloined from the nest — I must beg the feathered parents' forgiveness—have added several interesting facts to the subject in hand. One spring I became guardian, purveyor, and man-of-all-work to a pair of young flickers, taken from a cavity in an old appletree. They were kept in a large cage, in which I placed sapling boughs of considerable size. They had not become my protégés many days before they insisted on converting these upright branches into sleeping-couches, clinging to the vertical boles with their stout claws, and pillowing their heads in the feathers of their backs. In this position they slept as comfortably as the thrushes and orioles confined in other cages slept on their horizontal perches, or, for that matter, as I slept in my own bed. They

¹ The reader will see, from the facts given in the remainder of the chapter, that I reckoned without my host in supposing that woodpeckers usually sleep in cavities of trees. That they sometimes select such places for roosts cannot be doubted; but that such is always or even generally their habit the experiments described farther on conclusively disprove. It is only fair to say that the rest of the chapter was added long after the foregoing had been written, and proves how unsafe it is for the naturalist to make generalizations.

even slept on the under side of an oblique branch. One of them passed one night on a horizontal perch, although apparently his slumbers were not quite so sound and refreshing as they would have been had he roosted in the wonted upright position. Queerest of all, these woodpeckers sometimes selected the side of the cage itself for a roosting-place, thrusting their claws into the crevice between the door and its frame. Wherever they roosted, their tails were made to do duty as braces, by being pressed tightly against the wall to which they clung. A pair of young red-headed woodpeckers behaved in much the same way, always preferring to sleep on an upright perch.

During the spring of 1893 I placed in a cage the following birds, all taken while in a half-callow state, from the nest: Two cat-birds, one red-winged black-bird, one cow-bunting, and two meadow-larks. In a few days all of them proclaimed their species, as well as the inexorable law of heredity, by selecting such roosts as were best adapted to them, and that without any instruction whatever from adult birds. The meadow-larks almost invariably squatted on the grass with which the floor of the cage was lined, usually scratching and waddling from side to side until they had made cosey hollows to fit their bodies; while the remaining inmates flew up to the perches when bed-time came.

It was quite interesting to look in upon my group of sleeping pets of an evening, part of them roosting in the lower story of the cage and the rest in the upper story. Several times, however, one of the larks slept on a perch, and the red-wing, after the cat-birds and bunting had been removed from the cage, occasionally seemed to think the upstairs a little lonely, and so he cuddled down on the grass below, edging up close to the larks. The strangely assorted bed-fellows slept together in this way like happy children.

XI.

THE WOOD-PEWEE.

A MONOGRAPH.

LMOST every person living in the country or the suburbs of a town is familiar with the house-pewee, or phœbe-bird. It is usually looked upon as the sure harbinger of spring. In my boyhood days my parents and grandparents were wont to say, "Spring is here; the phœbe is singing." And if blithesomeness of tone and good cheer have anything to do with the advent of the season of song and bursting blossoms, the pewit, as he is often called, must be a true herald and prophet. He seems to carry the "subtle essence of spring" in his tuneful larynx, and in the graceful sweep of his flight as he pounces upon an insect. It is quite easy to make the transition from his familiar song of Phe-e-by to the exclamation, Spring's here! by a little stretch of the fancy.

But the phœbe has a woodland relative, a first cousin, with which most persons are not so well acquainted, because he is more retiring in his habits, and seeks out-of the-way places for his habitat. I refer to the wood-pewee. If your eyes and ears are not so sharp as they should be, you may get these

two birds confounded; yet there is no need of making such a blunder. The woodland bird is smaller, slenderer, and of a darker cast than his relative; and, besides, there is a marked difference in the musical performances of these birds. The song of the phæbe is sprightly and cheerful, and the syllables are uttered rather quickly, while the whistle of the wood-pewee is softer and more plaintive, and is repeated with less emphasis and more deliberation. There is, indeed, something inexpressibly sad and dreamy about the strain of the wood-pewee, especially if heard at a distance in the "emerald twilight" of the "woodland privacies." Mr. Lowell seldom erred in his attempts to characterize the songs and habits of the birds, but in his exquisite poem entitled "Phœbe" he certainly must have referred to the wood-pewee and not to the phœbe-bird, as his description applies to the former but not to the latter. He calls this bird "the loneliest of its kind," while the pewit is a familiar species about many a country home. Taking it for granted that he meant the wood-pewee, how happy is his description!

"It is a wee sad-colored thing,
As shy and secret as a maid,
That ere in choir the robins ring,
Pipes its own name like one afraid.

"It seems pain-prompted to repeat The story of some ancient ill, But *Phæbe! Phæbe!* sadly sweet, Is all it says, and then is still.

"Phæbe! it calls and calls again;
And Ovid, could he but have heard,
Had hung a legendary pain
About the memory of the bird.

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"Phabe! is all it has to say
In plaintive cadence o'er and o'er,
Like children who have lost their way,
And know their names, but nothing more."

This poetical tribute is certainly very graceful, and would be true to life if the phonetic representation were a little more accurate. Instead of Phwbe, imagine the song to be Pe-e-w-e-e or Phee-7v-e-e-e, and you will gain a clear idea of the minstrelsy of this songster of the wildwood. However, he frequently varies his tune, - to prevent its becoming monotonous, I opine. He sometimes closes his refrain with the falling inflection or circumflex, and sometimes with the rising, as the mood prompts him. In the former case the first syllable receives the greater emphasis and is the more prolonged, and in the latter this order is precisely reversed. When the last syllable is uttered with the rising circumflex, it is usually, if not always, cut off somewhat abruptly. Moreover, this minstrel often runs the two syllables of his song together, — a peculiarity that I have represented in my notes, taken while listening to the song, in this way: Phe-e-e-oo-w-e-e-e! There is a characteristic swing about the melody that refuses to be caught in the mesh of letters and syllables.

In some of the pewee's vocal efforts he does not

get farther than the end of the first syllable. The song seems to be cut off short, as if the notes had stuck fast in the singer's throat, or as if something had occurred to divert his mind from the song. Perhaps this hiatus is caused by the sudden appearance of an insect glancing by, which attracts the musician's attention. This bird usually chooses a dead twig or limb in the woods as a perch, on which he sits and sings, turning his head from side to side, so that no flitting moth may escape him.

And what a persistent singer he is! He sings not only in the spring when other vocalists are in full tune, but also all summer long, never growing disheartened, even when the mercury rises far up into the nineties. What a pleasant companion he has been in my midsummer strolls as I have wearily patrolled the woods! On the sultriest August days, when all other birds were glad to keep mute, sitting on their shady perches with open mandibles and drooping wings, the dreamful, far-away strain of the wood-pewee has drifted, a welcome sound, to my ears through the dim aisles. He seems to be a friend in need. How often, when the heat has almost overcome me, as I pursued my daily beat, that song has put new vigor into my veins! When Mr. Lowell wrote that

> "The phæbe scarce whistles Once an hour to his fellow,"

he must have been listening to a far lazier specimen than those with which I am acquainted. Most birds fall occasionally into a kind of ecstasy of song, and the wood-pewee is no exception. One evening, after it had grown almost dark, a pewee flew out into the air directly above my head from a tree by the wayside, and began to sing in a perfect transport as he wheeled about; then he swung back into the tree, keeping up his song in a continuous strain, and in sweet, half-caressing tones, until finally it died away, as if the bird had fallen into a doze during his vocal recital. I lingered about for some time, but he did not sing again-Why should he repeat his good-night song?

I have frequently heard young pewees in midsummer singing in a continuous way, instead of whistling the intermittent song of their elders. It sounds very droll, giving you the impression that the little neophyte has begun to turn the crank of his music-box and can't stop. His voice is quite sweet, but his execution is very crude. Wait, however, until he is eight or nine months older, and he will show you what a winged Orpheus can do. My notes say that on the thirtieth of July, 1891, I heard a "pewee's quaint, prolonged whistle, interlarded with his ordinary notes." Thus it will be seen that he is a somewhat versatile songster, proving the poet's lines half true and half untrue:—

"The birds but repeat without ending
The same old traditional notes,
Which some, by more happily blending,
Seem to make over new in their throats."

Younger readers may, perhaps, need to be informed that the wood-pewee belongs to the family of flycatchers, as do also the king-bird or beemartin, the phæbe-bird, the great-crested flycatcher, and a number of other interesting species, all of which have a peculiar way of taking their prev. The pewee will sit almost motionless on a twig, lisping his plaintive tune at intervals, until a luckless insect comes buzzing near, all unconscious of its peril, when the bird will make a quick dash at it, seize it dexterously between his mandibles, and then circle around gracefully to the same or another perch, having made a splendid "catch on the fly." If the quarry he has taken is small, it slips at once down his throat; but should it be too large to be disposed of in that summary way, he will beat it into an edible form upon a limb before gulping it down. Agile as he is, he sometimes misses his aim, being compelled to make a second, and occasionally even a third attempt to secure his prize. I have witnessed more than one comedy which turned out to be a tragedy for the ill-starred insect. Sometimes the insect will resort to the ruse of dropping toward the ground when it sees the bird darting toward it, and then a scuffle ensues that is really laughable, the pursuer whirling, tumbling, almost turning somersault in his desperate efforts to capture his prize. Once an insect flew between me and a pewee perched on a twig, when the bird darted down toward me with a directness of aim that made me think for a moment he would fly right into my face; but he made a dexterous turn in time, caught his quarry, and swung to a bough near by. If one were disposed to be speculative, one might well raise Sidney Lanier's pregnant inquiry at this point, the reference being to the southern mocking-bird, and not to our pewee,—

"How may the death of that dull insect be The life of you trim Shakspeare, on the tree?"

It has been my good fortune to find one, but only one, nest of this bird. It was placed on a horizontal branch about fifteen feet above the ground, and was a neat, compact structure, decorated on the outside with grayish lichens and moss, giving it the appearance of an excrescence on the limb.¹ It is said by those who have closely examined the nests, that they are handsomely built and ornamented, and are equalled only by the dainty houses of the humming-bird and the blue-gray gnat-catcher. The eggs, usually four in number, are of a creamy white hue, beautifully embellished with a wreath of lavender and purplish-brown around the larger end or near the centre.

Though our bird prefers solitary places for his home, he is far from shy, if you call on him in his haunt in the wildwood. He will sit fearless on his perch, even if you come quite near, looking at

¹ Since this was written, I have found several more nests, and have even watched the skilful architects at their house-building.

you in his staid, philosophical way, as if you were scarcely worth noticing. Nor will he hush his song at your approach, although he does not seem to care whether you listen to him or not. It is seldom that he can be betrayed into doing an undignified act; and even if he does almost turn a somersault in pursuing a refractory miller, he recovers his poise the next moment, and settles upon his perch with as much sang froid as if nothing unusual had occurred. Altogether, the wood-pewee is what Bradford Torrey would call a "character in feathers."

XII.

A PAIR OF NIGHT-HAWKS.

HE night-hawk and the whippoorwill are often confounded by persons of inaccurate habits of observation. It is true, both birds are members of the goatsucker family; but they belong to entirely different genera, and are therefore of much more distant kin than many people suppose. The whippoorwill is a forest bird, while the night-hawk prefers the open country. Besides, the whippoorwill is decidedly nocturnal in his habits, making the woods ring at night, as every one knows, with his weird, flutelike melody; whereas the night-hawk is a bird of the day and evening. Then, a peculiar mark of the night-hawk is the round white spot on his wings, visible on the under surface as he performs his wonderful feats overhead, - a mark that does not distinguish his woodland relative.

As a rule, the gloaming is the favorite time for the night-hawk's wing-exercises; then he may be seen whirling, curveting, mounting, and plunging, often at a dizzy height, gathering his supper of insects as he flies; but his petulant call is often heard at other hours of the day, perhaps at noon when the sun is shining with fierce warmth. Even during a shower

he seems to be fond of haunting the cloudy canopy, toying with the wind.

His call, as he tilts overhead, is difficult to represent phonetically, both the vowels and consonants being provokingly elusive and hard to catch. To me he seems usually to say *Spe-ah*. Sometimes the *S* appears to be omitted, or is enunciated very slightly, while at other times his call seems to have a decidedly sibilant beginning. On several occasions he seemed to pronounce the syllable *Scape*.

I had often watched the marvellous flight of these birds, as they passed like living silhouettes across the sky; but they had always seemed so shy and unapproachable that, prior to the summer of 1891, I had despaired of ever finding a night-hawk's nest. However, one evening in June, while stalking about in the marsh, I suddenly became aware of a large bird fluttering uneasily about me in the gathering darkness. Presently it was joined by its mate, and then the two birds circled and hovered about, · often coming into uncomfortable proximity with my head, and muttering under their breath, Chuckle! chuckle! Several times one of them alighted for a few moments on the rail-fence near by, and then resumed its circular flight. Even in the darkness I recognized that my uncanny companions were nighthawks, and felt convinced that there must be a nest in the neighborhood, or they would not display so much anxiety. It was too late to discover their secret that evening, and, besides, I really felt a slight chill creeping up my back, with those dark, ghostly

forms wheeling about my head, and so I went reluctantly home.

Two days later I found time to visit the marsh. On reaching the spot where the two birds had been seen, presto! a dark feathered form started up before me from the ground. It was the female night-hawk; and there on the damp earth, without the least trace of a nest or a covering of any kind, lay two eggs. At last I had found a night-hawk's nest! The ground-color of the eggs, which were quite large, was of a dirty bluish-gray cast, mottled and clouded with darker gray and brown.

The behavior of the mother bird was curious. She had fluttered away a few rods, pretending to be hurt, and then dropped into the grass. On my driving her from her hiding-place, she rose in the air and began to hover about above my head, and then, to my utter surprise, she swooped down toward me savagely, as if she really had a mind to attack me. As I walked away, she seemed to grow angrier and bolder, making a swift dash at me every few minutes, and actually coming so near my head as to cause me involuntarily to raise my cane in self-defence. A quaver of uneasiness went through me. I really believe she would have struck me had I given her sufficient provocation. There was a brisk shower falling at the time, and so, fearing the eggs might become addled, I hurried to the remote end of the marsh. Suddenly my feathered pursuer disappeared. Wondering if she had resumed her place on the nest, I sauntered back to settle the doubt, but presently espied her sitting lengthwise on a top rail of the fence, while her eggs lay unprotected in the rain. Her dark, mottled form and sleepy, half-closed eyes made a quaint picture. I slowly withdrew, and as long as I could see her with my glass, she kept her perch on the rail without moving a pinion.

On the twenty-third of June another call was made on the night-hawk family, when I found two odd-looking bairns in the nest, if nest it could be called. They were covered with soft down, the black and white of which presented a wavy appearance. Their short, thick bills were covered with a speckled fuzz, except the tips. I stooped down and smoothed their downy backs with my hand, but there was no expression of fear in their sluggish eyes.

Both parents were present on the twenty-sixth of June. For a while the male bird pursued his mate savagely through the air, as if venting on her his anger at my intrusion, and then, mounting far up toward the sky and poising a moment, he plunged toward the earth with a velocity that made my head dizzy, checking himself, as is his wont, with a loud resounding Bo-o-m-m. The female again pursued her unwelcome visitor, swooping so near my head two or three times that I could have reached her with my cane. The cock bird, curiously enough, never displayed so much courage, but kept at a safe distance.

On the twenty-ninth the young birds had been moved about a half rod from the original site of the nest, and hopped off awkwardly into the grass when I tried to clasp them with my hand. The benedict was absent this time, and was never seen on any of my subsequent visits while the young birds were fledging. By the first of July the bantlings hopped about in a lively manner at my approach to their domicile, and wheezed in a frightened way, spreading out their mottled pinions. On the seventh of July neither of the parents was to be seen, and the youngsters sat so cosily side by side on the ground that I had not the heart to disturb their slumbers. Approaching cautiously on the tenth, I almost stepped on the mother bird before she flew up. At the same moment both young birds started from the ground, and fluttered away in different directions on their untried wings, their flight being awkward and labored. A few weeks later four night-hawks were circling about above the marsh, - no doubt the family that had been affording me such an interesting study. What was my surprise when one of them resented my presence by swooping down toward me, as the female had done a few weeks before!

Reference has already been made incidentally to the night-hawk's curious habit of "booming," as it is called. This sound is always produced as he plunges in an almost perpendicular course from a dizzy height, —or, more correctly, at the end of that headlong plunge, just as he sweeps around in a graceful curve. There is something almost sepulchral about the reverberating sound. How it is produced is a problem over which there has been no small amount of discussion in ornithological circles. But after

considerable study of this queer performance, I am persuaded that it is a vocal outburst, produced either for its musical effect (though it is far from musical), or else to give vent to the bird's exuberance of feeling as he makes his swift descent.

His thick, curved bill seems admirably adapted to produce this sound, as do also his arched throat and neck. It has seemed to me, too, that his mandibles fly open at the moment the boom is heard, although I cannot be sure such is the case. Besides, the peculiar chuckle, previously referred to, had about it a quality of sound suggestive of kinship with the bird's resounding boom. The hollow, wheezy alarm-call of the young birds, heard on several of my visits to the nest in the marsh, corroborates this theory. But there is still further proof that this hypothesis is correct. The night-hawk often makes his headlong plunge without booming at all, but merely utters his ordinary rasping, aerial call, which has been translated by the syllable Spe-ah. Then he sometimes combines the two calls, and on such occasions both of the sounds are uttered with a diminished loudness, as one would expect if both are vocal performances, but as one would not expect if the booming were made by the concussion of the bird's wings with the resisting air, as some ornithologists suppose. The female sometimes booms, but her voice obviously lacks the strong, resounding quality that characterizes the voice of her liege lord.

XIII.

A BIRDS' GALA-DAY.

IN Mr. Emerson's poem entitled "May Morning" this stanza occurs:—

"When the purple flame shoots up,
And Love ascends the throne,
I cannot hear your songs, O birds,
For the witchery of my own."

It would seem, therefore, that to be a poet does not always give one the coign of vantage in observing Nature, but may, on the contrary, prove a positive disadvantage. Should the rambler go about "crooning rhymes" and making an over-sweet melody to himself, instead of keeping his ear alert to the music around him, he would be likely to miss many a wild, sweet song fully as enchanting as his own measured lines. No music of my own, however, diverted my mind from Nature's blithe minstrels as, on the twenty-ninth of April, 1892, I pursued my avian studies in some of my favorite resorts.

It was nine o'clock when I reached the quiet woodland lying beyond a couple of fields. The first fact noted was the return of a number of interesting migrants which had not been present

on the preceding day. They had, as is their wont, come by night from some more southern rendezvous. Among them was the oven-bird or accentor, announcing his presence with his startling song, which at first seemed to come from a distance, but gradually drew nearer, like a voice walking toward me as it grew louder and more accelerated. On account of this quaint ventriloquial quality of voice, the little vocalist is often very difficult to find, and you are sure to look in a dozen places before you at last descry him. What a sedate genius he is, as he sits atilt on a twig, or walks in his leisurely fashion on the leaf-carpeted ground, looking up at you at intervals out of his sage, beady eyes.

I have hinted that the oven-bird was first seen and then heard. In this respect the habits of different species of birds differ widely. The accentors, meadow-larks, orioles, bobolinks, Bewick's wrens, summer warblers, white-crowned sparrows, and some other species usually begin at once to celebrate with pæans their return to their old haunts; whereas the wood-thrushes, brown thrashers, and white-throated sparrows seem to wait several days after their arrival before they tune their harps, — a diversity of behavior difficult to explain. Scarcely less inexplicable is the fact that some species arrive in scattered flocks, others in battalions and armies, and others still, one by one. My notes made on this day contain this statement: "Yesterday I heard a single call of the red-headed woodpecker; to-day the woods are full of these birds."

On the first day of April the first Bewick's wren of the spring appeared, but, strange to say, not another wren was seen until near the end of the month. A single bird often goes ahead of the main body of migrants like a scout or outrider; while not infrequently a small company precedes the approaching army in the capacity, perhaps, of an advance guard.

Threading my way through the "dim vistas, sprinkled o'er with sun-flecked green," to an open space near the border of the woods, I had the opportunity of listening to an improvised cat-bird concert, without a cent of charge for admission. Here some mental notes were made on the vocal qualities of this bird in comparison with those of the celebrated brown thrasher, and with some hesitancy I give my conclusions. Each songster has his special points of excellence. The thrasher has more voice volume than his rival, his technique is better, he glides more smoothly from one part of his song to another, and executes several runs that for pure melody and skill in rendering go beyond the cat-bird's ability; but, on the other hand, it must be said that the latter minstrel's song contains fewer harsh, coarse, unmusical notes; his voice, on the whole, is of a finer quality, is pitched to a higher key, and his vocal performances are characterized by greater artlessness or naïveté. Though professing to be no connoisseur, I have never felt so deeply stirred by the thrasher's as by the cat-bird's minstrelsy. There does not seem to be so much

fervor and real passion in the vocal efforts of the tawny musician.

A little farther on, I again turned my steps into a dense section of the woods. Suddenly there was a twinkle of wings, a flash of olive-green, a sharp Chip, and then there before me, a few rods away, a little bird went hopping about on the ground, picking up dainties from the brown leaves. What could it be? Was I about to find a species that was new to me? It really seemed so. My operaglass, when levelled upon the bird, revealed olivegreen upper parts, yellow or buff under parts, and four black stripes on the head, two on the pileum and one through each eye. It was the rare wormeating warbler (Helmitherus vermivorus) at last, — a bird that had for many years eluded me. The little charmer was quite wary, chirping nervously while I ogled him, - for it was a male, - and then hopped up into a sapling, and finally scurried away out of sight.

A few steps farther on in the woods an extremely fine cat-like call swung down, like thread of sound, from the tree-tops. Of course, it was my tiny acquaintance the blue-gray gnat-catcher, and his pretty spouse, who had arrived, perhaps from Cuba or Guatemala, a few days before. What an immense distance for their frail little wings to traverse, "through tracts and provinces of sky"! You seldom see anything more dainty and dream-like than the fluttering of these birds from one tree-top to another, reminding you of an animated cloudlet hovering and darting about in mid-air. Not a more

fay-like bird visits my woodland than the blue-gray gnat-catcher. Even the ruby-throated humming-bird, though still smaller, seems rather roly-poly in comparison; and no warbler, not even the graceful redstart, can flit about so airily. One of the gnat-catchers in the tree-top presently darted out after a miller, which tried to escape by letting itself fall toward the ground. A vigorous drama followed. The bird plunged nimbly after, whirling round and round in a spiral course until it had secured its wriggling prize.

The gnat-catcher lisps a little song, — a gossamer melody, it might be called. His slender voice has quite a "resonant tang." On that day I did not take notes on his music, but the next day I had a good opportunity to do so; and I give the result, especially as no minute description of this bird's song has been recorded, so far as I know. I had often heard it before, but had neglected to listen to it intently enough to analyze its peculiar quality. Bending my ear upon it, I distinctly and unmistakably detected, besides the bird's own notes, the notes of three other birds, — those of the cat-bird's alarm-call, of the phœbe's song, and of the goldfinch's song and call. The imitation in each case was perfect, save that the gnat-catcher's tones were slenderer than those of the birds whose music he had (if I may so speak) plagiarized. Is this tiny minstrel a mocker? Perhaps my description may be a surprise to many students of bird minstrelsy, but I can only say that, having listened to

the song for fully an hour, I could not well have been mistaken. Several times the reproduction of the goldfinch's song was so perfect that I looked the tree all over again and again with my glass for that bird, but goldfinches there were none about. Moreover, the gnat-catcher was in plain sight, dropping quite low in the tree part of the time; and there can be no doubt that every strain proceeded from his lyrical little throat.

The forenoon and part of the afternoon slipped away all too rapidly, bringing many valuable additions to my stock of bird lore; but I must pass others by to describe the most important "find" (to me) of this red-letter day in my experience. At about half-past four o'clock I reached an old bush-covered gravel-bank where many birds of various species have been encountered. As I stepped near a pool at the foot of the bank, a little bird flashed into view, setting my pulses all a-flutter. It was the hooded warbler, the first of the species I had ever seen. He was recognizable at once by the bright yellow hood he wore, bordered all around with deep black. A bright, flitting blossom of the bird world!

For fully an hour I lingered in that "embowered solitude," watching the bird's quaint behavior, which deserves more than a mere passing notice. He was not in the least shy or nervous, but seemed rather to court my presence. Almost every moment was spent in capturing insects on the wing or in sitting on a perch watching for them to flash into view. Like a genuine flycatcher, as soon as a buzzing insect

hove in sight, he would dart out after it, and never once failed to secure his prize. Sometimes he would plunge swiftly downward after a gnat or a miller, and once, having caught a miller that was large and inclined to be refractory, he flew to the ground, beat it awhile on the clods, and then swallowed it with a consequential air which seemed to say, "That is my way of disposing of such cases!" Several times he mounted almost straight up from his perch, and twice he almost turned a somersault in pursuit of an insect. Once he clung like a titmouse to the bole of a sapling. I could often hear the snapping of his mandibles as he nabbed his prey. When an insect came between him and myself, he would fearlessly dash directly toward me, as if he meant to fly in my face or alight on my head, often coming within a few feet of me. He seemed to be as confiding as a child. When I stepped to the other end of the gravel-bank, going even a little beyond it, curiously enough, the bird pursued me; then, as an experiment, I walked back to my first post of observation, and, to my surprise, he followed me again. Was he really desirous of my company? Or did he know that I intended to ring his praises in type? At length I stole away a short distance among the trees, but presently a loud chirping in my rear arrested my attention. I turned back, and found it to be my new-made friend, the hooded warbler, who, strange to say, seemed to be calling me back to his haunt. Then I climbed to the top of the gravelbank; he selected perches higher up in the saplings

than before, so as to be nearer me, — at least, so it appeared. The affectionate little darling! The only other sound he uttered during the entire time of our hobnobbing — his and mine — was the slenderest hint of a song, which was really more of a twitter than a tune.

But at last I bade the little sorcerer a reluctant adieu. In a hollow of the woods I lay down on the green grass, and listened for half an hour to the lyrical medley of a brown thrasher perched on a treetop. It was indeed a wonderful performance, and the longer I listened the more its witchery grew upon me. My special purpose in bending my whole attention upon this performance was to see if the thrasher mimicked the songs of other birds. Many persons think him a genuine imitator; indeed, in some places he is called the northern mocking-bird. I am forced to say, however, that, as far as my observation goes, he does not mimic, but sings his own compositions, like the original genius he is. In all that song, and others since listened to, not a single strain did he utter that I could positively identify as belonging to the musical repertoire of another bird. It is true, he sometimes, in the midst of his song, uttered the alarm call of the robin; but as both birds belong to the same family, this was not to be wondered at, and affords no evidence of the gift of imitation. If the thrasher does mimic his fellowminstrels, as many persons contend, the borrowed notes are so brief and so intermingled and blent with his own music as to be unrecognizable.

On the other hand, this tawny vocalist utters musical strains that are entirely unlike anything else in the whole realm of bird minstrelsy, proving his song to be characteristic. The brown thrasher is not a musical pirate, but an original composer, — a sort of Mozart or Beethoven in the bird world. And how wonderful are some of his slurred runs! Nothing in the domain of music could be finer, and the harsh notes he frequently interpolates only serve to accentuate and enhance the melody of those that are truly lyrical.

In his engaging book entitled "Birds in the Bush," Bradford Torrey, who is second to none in the school of popular writers on feathered folk, characterizes this tawny vocalist in a most admirable manner. ever, in regard to the matter of mimicry, his observations differ slightly from my own; yet I gladly quote what he says rather incidentally on the subject. One day he was listening to three thrashers singing simultaneously. "In the midst of the hurly-burly," he writes, "one of the trio suddenly sounded the whippoorwill's call twice, — an absolutely perfect reproduction." Then he adds, somewhat jocosely, in a foot-note: "The 'authorities' long since forbade Harporhynchus rufus to play the mimic. Probably in the excitement of the moment this fellow forgot himself." Of course, one cannot gainsay the testimony of so careful an observer and so conscientious a reporter as Mr. Torrey; yet it is possible that this whippoorwill call was only a slip of the thrasher's voice and not an intended imitation; at all events,

in my opinion, such vocal coincidences, whether accidental or designed, are of rare occurrence.

Since the foregoing observations were made and first published, I have often sought to prove them untrue, but have failed. No thrasher has ever, in my hearing, unmistakably plagiarized a single strain from his fellow-musicians. Fearing my ear for music might be defective, rendering me incapable of distinguishing correctly the various songs of birds, I put myself to the test in this way: On one of the streets of my native town there is a brilliant mocking-bird, whose cage is often hung out on a veranda. Again and again I have stopped to listen to his ringing medley, and have never failed to hear him distinctly mimic the songs and calls of other birds, such as the robin, blue jay, cardinal grossbeak, and redheaded woodpecker. Why should I be able instantly to detect the notes of other birds in the mocker's song and never once be able to detect them in the song of the thrasher?

But it is fully time to return to my ramble. The gifted songster in the tree-top would sometimes pipe a strain of such exquisite sweetness that it seemed to surprise himself; he would pause a moment, as if to reflect upon it and fix it in mind for future use; and erelong he would repeat it, reminding his admiring auditor of Browning's lines on the Wise Thrush,—

"He sings each song twice over, Lest you should think he never could recapture The first fine careless rapture." New strains were continually introduced. So loud and full were some of his notes that "the blue air trembled with his song," and the woods fairly woke into echoes. It is really doubtful if the disparaging term "hurly-burly" should be applied to such peerless vocalization. It was bird opera music of the highest style, improvised for the occasion, and formed a fitting conclusion to this rare birds' gala-day.

XIV.

RIFE WITH BIRDS.

A JAUNT TO A NEW FIELD.

A FOUR days' outing along the Ohio River one spring brought me some "finds" that may be of interest to bird lovers. Everywhere there were the twinkle of wings, the twitter of voices, and the charm of song; indeed, so plentiful were the feathered folk that the title of this article is far less poetical than realistic and descriptive. It was the latter part of May, the time in that latitude when the birds were in full song, at least those which were not too busy with their family cares. Sixty-four species were seen during a stay of four days in the neighborhood.

Mine host was a farmer whose premises afforded a habitat for numerous birds, there being many trees and bushes in the yard and a large orchard near by. In one of the silver maples a pair of warbling vireos had built a tiny pendent cradle, as is their wont, set in a bower of shining twigs and green leaves. There it swayed in the zephyrs, rocking the birdlings to sleep and filling their dreams with rhythm; and the lullabies that the happy

parents sang were cheerful and engaging, in spite of the fact that some critic has pronounced the minstrelsy of the warbling vireo tiresome. Tiresome, forsooth! Truth to tell, the more closely you listen to it the sweeter it grows. All day long, from peep of dawn to evening twilight, those quaint, continuous lays could be heard, now subdued and desultory, now almost as vigorous as a robin's carol.

It sometimes seemed as if the vireos and orchard orioles were rival vocalists. If so, a prize should be awarded to both, — to the vireos for persistency, for never letting up; to the orioles for richness and melody of tone. Many a rollicking two-part concert they gave.

But there were other voices frequently heard in the chorus, though not so continuously as those of the birds just mentioned. A song-sparrow, which had built a dainty cot in a bush not two rods from the veranda, sometimes trilled an interlude of entrancing sweetness, taking the bays for real tunefulness from every rival. Then, to my surprise, a Maryland yellow-throat, shy little fellow in other places, would frequently sing his heart out in the small trees and silver maples of the front yard. He did not fly off or discontinue his song when an auditor stood right beneath his perch, but would throw back his masked head, distend his golden throat, and deliver his trill to his own and everybody else's satisfaction. Very often, too, the indigobird, just returned from a bath in the cerulean depths, would enrich the harmony with the most

rollicksome, if not the most tuneful lay of the chorus. As a sort of accompaniment, the chipping-sparrow often trilled his silvery monotone; and once a robin added his *Cheerily*, here, here!

So much for the birds about the house, though there were many others that have not been mentioned; in fact, there were some twenty species in all. There were also birds a-plenty in other places. A half day was spent in some fields bordering the broad river. On a green slope was a bush-sparrow's nest, daintily bowered in the grass by the side of a blackberry bush, and in a thicket hard by two yellow-breasted chats had placed their grassy cradles, proclaiming their secret to all the world by their loud cries of warning to keep away. It is odd that these birds, shy and nervous as they are, should go so far out of their way to tell you that they have a nest somewhere in the copse that you mustn't touch, must n't even look for. While you are yet a quarter of a mile away, they will utter their loud cries of warning; and if you go to the thicket where they are, you will be almost sure to find their nest, so poorly have they learned the lesson of discretion.

In a little hollow of the copse a dying crow lay prone upon the ground. At intervals he would struggle and gasp in a spasmodic way. When I gently moved him with my cane, he grasped it with his claws and held it quite firmly. I put the stick to his large black beak. He took hold of it feebly, ready to defend himself even with his last gasp, for that it proved to be; he lay over and died the next

instant. I could not give the pathology of the case, as no wounds could be found on his body.

One of the most interesting finds of the day was the nest of a green heron, often called "fly-up-thecreek." The nest, only a loosely constructed platform of sticks, was placed on the branches of a leaning clump of small trees, and was about twenty feet from the ground. The startled bird flew back and forth in the row of trees, and even went back to the nest while I watched her at a distance, but was too shy to remain there when I went near. In spite of the offensive nicknames foisted upon this heron, it is a handsome bird. As this one flew back and forth she made quite an elegant picture, with her long, glossy-brown neck and tail, white throatline, ash-blue back, dappled under parts, and the long, slender feathers draping her hind-neck. But why was she called the green heron? Look as sharply as I would, I could descry no green in her plumage. A few days later, however, I examined a mounted specimen, and then the puzzle was solved; for an iridescent green patch on the wing was so marked a feature of its coloration as to account for the bird's common name.

Memory will always linger fondly about a certain afternoon and evening spent on the steep hills mounting up toward the sky a quarter of a mile or more back from the river. To a pedestrian like myself, used to rambling over a comparatively level scope of country, these high hills afforded a wonderful prospect, and almost made my head dizzy, as I

clambered far up their steep sides. Perhaps the mountain-climber would think them tame. It made my head swim that evening to see a towhee bunting dart from a copse near by and hurl himself with reckless abandon down the declivity, as if there were not the slightest danger of breaking his neck or dashing himself to pieces. He stopped just in time to plunge into another thicket for which he had taken aim.

As the sun sank, I seated myself on the grass far up the steep, and looked down on the beautiful valley below me. There was the broad Ohio, wending its way between the sentinel hills, the green clover fields and meadows smiling good-night to the sinking sun, and the brown ploughed fields with their green corn-rows. A wood-thrush mounted to a dead twig at the very top of a tall oak some distance below me, and poured forth his sad vesper hymn, so bewitchingly sweet and far-away; the while Kentucky warblers and cardinal grossbeaks piped their lullabies or madrigals, as they chose, from the darkling woods; and, altogether, it was a never-to-beforgotten evening.

An early morning hour found me climbing the acclivity and mounting to the top of the hill. In a clover-field the gossamer *Tse-e-e* of the grasshopper sparrow, a birdlet among birds, pierced my ear. Presently a pair of these sparrows were seen on the fence-stakes, and, yes, one of them had a worm in its bill, indicating that there were little ones in the neighborhood. If I could find a grasshopper spar-

row's nest! Often had I sought for one, but without success. For a long while my eyes followed the bird with the worm in her bill. Every now and then she would dart over into the grass as if to feed her bantlings, and I would mark the spot where she alighted; but when I went to it no nest or birdlings were to be found. Again and again I fairly trembled, thinking myself on the verge of a discovery, only to be balked completely in the end. But one victory was won; I got close enough to the bird to see distinctly with my glass the yellow markings on the edge of the wings, - a characteristic I had never before been able to make out. Curiously enough, one wing of this bird was quite profusely tinged with yellow, while the yellow of the other could just be distinguished.

Why should not a bird-student frankly chronicle his failures as well as his successes? During the day I encountered three birds that I was unable to identify, try as I would. One was singing lustily in some tall trees, and when at length I got my glass upon him he looked like a Carolina wren; but that bird has been a familiar acquaintance for many years, — comparatively speaking, — and I have so often heard his varied roundels that they certainly are all known to me. Moreover, the quality of this mysterious singer's voice and the manner of his execution were wholly different from those of the Carolina or any other wren of my acquaintance. The following is a transcription of the song as near as it could be represented by letters: Che. ha-p-c-e-r-r-r!

che-ha-p-c-e-r-r-r! repeated at brief intervals loudly and vigorously, but without variation. The bird had a white superciliary line, brownish-barred wings, and whitish under parts. A consultation of all the manuals in my possession fails to solve the problem.

In a deep gorge, cut through the country by a small creek — small now, at least — on its way to the river, two curious bird calls were heard; but one bird kept himself hidden in a dense thicket, and the other bolted into the dark woods that covered a steep acclivity. The first bird sang rather than called, and the words he said sounded quite distinct: Che-o-wade'll-wade'll-chip!— a sentiment that he repeated again and again.

In spite of these disappointments my jaunt through this ravine was exceedingly pleasant,—so delightfully quiet and solitary; not a human sound to disturb the sacredness of the place; nothing but the songs and calls of wild birds.

"'T was one of those charmed days
When the genius of God doth flow;
The wind may alter twenty ways,
A tempest cannot blow:
It may blow north, it still is warm;
Or south, it still is clear;
Or east, it smells like a clover-farm;
Or west, no thunder fear."

In one of the loneliest parts of the ravine there appeared on the scene my first Louisiana water-thrush, often called the large-billed wagtail. There it stood "teetering" on a spray or a rock, or skimming through the shallow water, its speckled breast

and olive back harmonizing - I had almost said rhyming - with the gray of the creek's bed, the crystal of the water, and the green of the thicketfringed banks. It was part and parcel of the scene, - a lone bird in a lone place. But, hold! not lone, after all. Presently a young wagtail, the image of its mamma, emerged from somewhere or nowhere, and ran toward the old bird with open mouth, twinkling wings, and a pretty, coaxing call. She thrust something into its mouth; but still the bantling coaxed for more, when she dashed away a few feet, picked up another tidbit from the water, ran back to her little charge, and fed it again. But now, when it still pursued her, she seemed to lose her patience, for she rushed threateningly toward it, causing it to scamper away, and then she flew off. Yet after that she fed either the same or another youngster a number of times. Once a water-thrush went swinging down the gorge, the very poetry of graceful poise and movement, looking more like a naiad than a real flesh-and-blood birdlet.

On a horizontal branch extending out over the rippling stream, a wood-thrush sat on her mud cottage; but whether she appreciated the romantic character of the situation or not, she did not say. There were many other interesting feathered folk in the gorge and on its wooded steeps, each "a brother of the dancing leaves;" but to describe them all would take too long, and merely to name them would be too much like reciting a dry catalogue.

XV.

VARIOUS PHASES OF BIRD LIFE.1

I.

BIRD COURTSHIP.

O one who has studied the birds can deny that there is genuine sexual love among them. Many species act on the principle that "a pure life for two" is the only kind of life to live, and therefore a match once made is a match that lasts until death does them part. There may be fickleness, divorce, and downright unfaithfulness among birds sometimes, and there certainly is polygamy among some species; but such examples of irregularity are rather the exception than the rule. Monogamy largely prevails, and I have no doubt that any departure from the regular connubial relation creates a scandal in bird circles.

As in the human world, so in the bird world a period of courtship precedes the celebration of the nuptials. But the mode differs in different kingdoms of creation. Many lovers in feathers conduct their

¹ This series of papers, as well as some others in this volume, was written at the suggestion of Mr. Amos R. Wells, of "The Golden Rule," Boston, and was first published in that journal.

wooing in a somewhat rudely persistent and obtrusive fashion. Society would soon ostracize the human suitor having such manners, and might even consider him amenable to the civil courts, and put him in jail as a character unfit to be abroad. However, if hot pursuit, brazen manners, and half-coercive measures are considered "good form" in bird land, we of the human genus are the last who have a right to find fault, for are we not the most conventional beings on the face of the earth? You might almost as well be in limbo or inferno as out of style. Was there not a time when even the flaming sunflower was regarded as the highest emblem of the beautiful, merely because it was the "fad," and not because anybody really felt that it possessed special æsthetic qualities? "People who live in glass houses ought not to throw stones," is the saucy challenge of the merry chickadee to his human critic, as he dashes, like an animated "niggerchaser," after the little Dulcinea whom he has marked for his bride. Then he stops, and, balancing on a spray, whistles his sweetest minor tune, Pc-ew-e-e, pe-e-e-w-e-e; which, being interpreted, probably means, —

> "Does not all the blood within me Leap to meet thee, leap to meet thee, As the spring to meet the sunshine?"

No doubt many a feathered swain is smitten, and smitten very deeply too, with Cupid's arrow, flung by some charming capturer of hearts. A little boy's love-letter to a lassie who had taken his throbbing heart by storm, ran thus: "I love you very dearly. You are so nice that I don't blame anybody for falling in love with you. I don't see why everybody does n't fall in love with you." If one may judge from the impetuosity with which most feathered lovers press their suits, there must be many instances of such captivation in bird land.

Have you ever been witness of the wooing of that half-knightly, half-boorish bird, the yellow-hammer? In the grove near my house several pairs of these birds had a great time one spring settling their hymeneal affairs. For hours a lover would pursue the object of his affections around and around, never giving her a moment's respite. No sooner had she gone bounding to another tree than he would dash after, often flinging himself recklessly right upon the spot where she had alighted, compelling her to hitch away, to avoid being struck by her impetuous lover. His policy seemed to be to take her heart by storm, to wear her out, to give her no time to think matters over, to compel her, nolens volens, to consent to his proposed marital alliance. No doubt she finally said yes, merely to get rid of him, and then failed of her purpose. After the courtship has passed its first stage, and the wooed one has grown less shy, the bowings and scrapings of the yellow-hammers are truly ludicrous. The female will flit away only a short distance, and will sometimes turn toward her mottled suitor, when they will wag their heads at each other, now to this side, now to that, in the most serio-comical manner imaginable. It is the

way these lords and ladies of woodpeckerdom make their royal obeisances.

On a pleasant day in February two downy wood-peckers were "scraping acquaintance." The male pursued his sweetheart about in the trees after the manner of his kind; but occasionally she would stand at bay and apparently challenge him to come nearer if he dared. Then both of them would lift their striped forms to an almost perpendicular position, their heads and beaks pointing straight toward the sky, and their bodies swaying grotesquely from side to side. This little comedy over, the finical miss bolted to another tree, with her cavalier in hot pursuit.

Coy as the feathered ladies usually seem, many of them apparently are genuine flirts, and would feel greatly disappointed should their lovers give over the chase. They evidently want to be won, but not too easily. (Perhaps it might be said, en passant, there are belles in other than the bird community who resort to similar naïve and winsome ruses.) In a shady nook of the woods I once saw a gallant towhee bunting employing all the arts at his command to win a damsel who seemed very demure. He was an extremely handsomely formed and finely clad bird, a real édition de luxe. He flew down to the ground, picked up a brown leaf in his bill, and flourished it at her, as much as to say, "It is time for nest-building, dear." Then he spread his wings and handsome tail, and strutted almost like a peacock about on the leafy ground. But, no, she would not, and

she would not, and there was no use in talking; she flitted, half contemptuously, to a more distant bush. That proud cockney need not think she cared for him! She was n't going to lose her heart to every lovelorn swain who came along. But, mark you, when I tried to separate them, by driving one to one side of the path and the other to the opposite side, the little hypocrite contrived every time, with admirable finesse, to flit over toward her knightly suitor. Three times the experiment brought the same result. Her maidenly reserve had a good deal of calculation in it, after all, innocent as she appeared. Perhaps she had conned Longfellow's wise quatrain:

"How can I tell the signals and the signs
By which one heart another heart divines?
How can I tell the many thousand ways
By which it keeps the secret it betrays?"

That the course of true love does not always run smooth in the bird world as elsewhere, goes without saying. There are 'feuds and jealousies. Sometimes two beaux admire the same belle, and then there may be war to the death. I have seen two rival song-sparrows clutch in the air, peck and claw at each other viciously, and come down to the ground with a thud that must have knocked the breath out of them for a few moments. Incredible as it may seem, an acute observer of bird life declares that the females are most likely to quarrel and fight over their lovers. At such times the male stands by, looks on approvingly, and lets them fight it out, no

doubt pluming himself on the fact that he is of sufficient importance to be the cause of a duel or a sparring-match among the ladies.

Even those birds that seem to be the impersonation of kindliness often engage in vigorous wrangles before they are able to settle the troubles that arise from match-making. The bluebird, of the siren voice and cerulean hue, is a case in point. Mr. Burroughs describes, in his inimitable way, the vigorous campaign of two pairs of bluebirds, which could not decide the subject of matrimony among themselves without resort to arms. Both the males and females engaged in more than one set-to. Once the hotheaded lovers closed with each other in the air, fell to the ploughed ground, and remained there, tugging and pecking and tweaking for nearly two minutes. Yet, when they separated, neither seemed to be any the worse for the *mêlée*.

The tiny hummers are extremely belligerent birds. A writer describes the contests of certain humming-birds in the island of Jamaica when moved by jealousy. When two males have become rivals, they will level their long, pointed bills at each other, and then dash together with the swiftness of an arrow; they meet, separate, meet again, with shrill chirping, dart upward, then downward, and circle around and around, until the eye grows weary of watching them, and can no longer follow their rapid transits. At length one falls, exhausted, to the ground, while the other rests, panting and trembling, on a leafy spray, or perhaps tumbles, mortally wounded, to the earth.

There are some diminutive hummers, called Mexican stars, which become perfect furies when their jealousy is aroused. Their throats swell; their crests, wings, and tails expand; and they clinch and spear each other in the air like the veriest disciples of Bellona. Thus a giant passion may dwell in a pygmy form.

It will be pleasant to turn to more gentle ways of pressing a love-suit. The manners of some males are very courtly while trying to win a spouse. They strut about most gracefully, and display their plumes to the best advantage, as if they would charm the coy damsel of their choice. The dainty kinglets erect and expand their crest feathers so that the golden or ruby spot spreads over the entire crown, making them look handsome indeed.

It has never been my good fortune to witness the wooing of the ruffed grouse, miscalled the partridge in New England and the pheasant in the Middle States; but Mr. Langille has seen the performance, and with good reason goes into raptures over it. He describes it in this way: "Behold the male strutting before the female in time of courtship! The first time I saw him in this act I was utterly at a loss to identify him. The ruff about the neck is perfectly erect, so that the head is almost disguised; the wings are partially opened and drooped gracefully; the feathers are generally elevated; the tail, with its rich, black band, is spread to the utmost and thrown forward. Thus he stands, nearly motionless, a genuine object of beauty."

One of the most brilliant exhibitions of this kind must be that of the great emerald birds of Paradise, as they disport themselves before the object of their affection. They gather in flocks of from twelve to twenty on certain trees. Mr. A. R. Wallace, in his "Malay Archipelago," gives an interesting description of these "dancing-parties," as they are called by the natives. The wings of the male birds, he says, "are raised vertically over the back; the head is bent down and stretched out; and the long plumes"—those that spring like spray from the sides or shoulders — "are raised and expanded till they form two magnificent golden fans, striped with deep red at the base, and fading off into the pale brown tint of the finely divided and softly waving points; the whole bird is then overshadowed by them, the crouching body, yellow head, and emeraldgreen throat forming but a foundation and setting to the golden glory which waves above them."

No wonder the maiden's reserve all melts away, and she soon yields willing consent to her lover's importunings! There is only one flaw in this beautiful picture, and that is made by man himself,—man, the meddler in avian happiness. While the birds are absorbed in their courtship, the natives, for love of pelf, steal near and shoot them with blunt arrows. Sometimes all the males are thus murdered, ruthlessly, heartlessly, before the danger is discovered. Of course the mercenary butchers sell the plumes for decorative purposes. Gold is the only thing that glitters in the eyes of a sordid world. Some people spell "God" with an "l."

No doubt vocal display also plays a large part in the courtship of birds. Nothing else in the early spring can wholly account for the wonderful musical tournaments that one hears lilting so lavishly on the air. Many a damsel, doubtless, listens to the numerous vocalists of her neighborhood, and then chooses the suitor whose voice possesses the finest qualities, or whose madrigals have the truest ring. How many things may combine to determine the choice of the parties, it would be difficult to say. Perhaps some birds are handsomer than others in the eyes of those that are looking for mates; perhaps some have more courtly and agreeable manners; perhaps some put more fervor into their wooing or more passion into their songs; perhaps some are better tempered; others may be more industrious or frugal or tidy, and thus will make better husbands or housewives. Many a lass doubtless is sorely puzzled as to whom she shall choose for a mate. One may even fancy her crooning Addison's quaint, paradoxical lines to a whimsical lover concerning whose eligibility she harbors some doubt, -

"In all thy humors, whether grave or mellow,
Thou'rt such a touchy, testy, pleasant fellow,
Hast so much wit and mirth and spleen about thee,
That there's no living with thee or without thee."

One question — not a profound one, I confess — must bring this chapter to a close: Do the plumed ladies ever propose? One might imagine a lovelorn female bird throwing aside her maidenly reserve

in a fit of desperation, and singing the lines of Mrs. Browning, —

"But I love you, sir;
And when a woman says she loves a man,
The man must hear her, though he love her not."

II.

BIRD NURSERIES.

A BIRD's nest is a bedroom, dining-room, sittingroom, parlor, and nursery all in one; for there the young birds sleep, eat, rest, entertain their guests (if they ever have any), and receive their earliest training. Yet there is no doubt that in treating the nest as a nursery we make use of the aptest simile that could be chosen. Those who have not given the matter special attention would scarcely suspect how many and varied are the interests that cluster around these dwellings of our little brothers and sisters of field and woodland. The growth of the bantling family, their mental development, their deportment in the nest, their chirpings and chatterings, their way of beguiling the time, the length of their stay in their childhood home, — all these, and many other problems of equally absorbing interest, can be solved only by the closest surveillance. But it is no light task to watch a nest at close enough range to study the natural, unrestrained ways of the young birds. The fact is, in many, perhaps most, cases it cannot be done.

But before describing the inmates of the nursery it would be well to give some attention to the nursery itself, its site and structure. By going to the books I might tell you of many quaint nests, of the nests of the tailor-bird, the water-ouzel, the parula warbler, the burrowing owl, and many others; but — begging pardon for my conceit — I prefer not to get my material second-hand. One would rather describe one's own observations, even though one may not be able to present so rare a list of curios. The nest of the common wood-thrush, right here in my own neighborhood, is of far more personal interest than the remarkable nest of the fairy martin of Australia, which I have small hope of ever seeing.

Having mentioned the nest of the wood-thrush, I might as well begin with it. It is not a remarkable structure from an architectural point of view. It might be called a semi-adobe dwelling, thatched with various kinds of grasses and leaves, and lined with vegetable fibres. It is much like the nest of the robin, only Madam Thrush does not go quite so extensively into the plastering business. It has been interesting to study the ingenuity of these sylvan architects in choosing sites for their nests. They seem to know just where a nest may be built with the least labor in order to make it sit firmly in its place. In the woods that I most frequently haunt there is a sort of bushy sapling whose branches, at a certain point on the main stem, often grow out almost horizontally for a few inches, and then form an elbow by shooting up almost vertically, thus making an arbor, as it were, which says plainly to the thrush, "This is just the site for a nest." In these crotches the wood-thrush rears her dwelling, its walls being firmly supported all around by the perpendicular branches. Do these saplings grow for the special benefit of the woodthrush, or does the feathered artificer accommodate herself to the circumstances, or is there mutual adaptation between bird and bush? That is a problem for the evolutionist.

But the thrush often selects other sites for her nursery. One day I found a nest deftly placed on the point of intersection of two almost horizontal From the lower one several small branches grew up in an oblique direction, to give the walls of the mud cottage firm support. The intersecting boughs belonged to two different saplings. Another nest that did not have very strong external support was set down upon the short stub of a limb, which ran up into the mud floor and held the structure firmly in place.

One day I stumbled upon a very tall thrush nest, looking almost like a tower in its crotch. nestlings had left, I lifted it from its place and tore it apart, thinking the thrush might have fallen upon the summer warbler's ruse to outwit the cow-bunting by adding another story to her hut, thus leaving the bunting's intruded egg in the cellar. But such was not the case; she had simply done the unorthodox thing of using an old nest, still in good condition, for a foundation upon which to rear the new structure. Will the theologians of thrushdom bring charges of

heresy against her? Was it really a case of "higher criticism"? It may have been, especially when you remember that these thrushes often weave into their nests fragments of newspapers, some of which may contain theological discussions.

One peculiarity in the nest-building of most of the birds of my neighborhood may as well be mentioned now as later; they seldom build in the densest and most secluded parts of the woods, but usually choose some bush or sapling near the border, or close to a woodland path or winding road, where people sometimes pass. Perhaps they do this because the natural enemies of birds, such as squirrels, minks, and hawks, fight shy of these pathways traversed by human feet. Perhaps, too, the birds do not like the gloom and loneliness of the more sequestered portions of the woods. They like to be semi-sociable, at least, and are not disposed to make monks and nuns of themselves.

A far more artless nest is that of the turtle-dove. This bird should attend an industrial college for a term or two, to learn the art of building; but it would do no good: the meek little thing would cling obstinately to her inherited ideas, and never become a connoisseur in nest construction. Sometimes, when you stand beneath her cottage, you can see her white eggs gleaming through the interstices of the loosely matted floor. As a rule, she builds on a branch; but something possessed one little mother, in the spring of 1891, to build her nursery on a large stump about six feet high, standing right in the

midst of the woods. I fear she was not a well-trained bird; but I watched her closely, and must concede that, whether her conduct was in "good form" or not, she reared her brood in the most approved manner. I could come within two feet of her, and almost touch her with my cane, before she would fly from the nest. How her little round eyes stared at me without so much as a blink! But she was greatly agitated, for her bosom palpitated with the violent throbbing of her heart.

"I've found a turtle-dove's nest on the ground," said my friend, the young farmer across the fields, one spring day. (No matter about the year of grace, for every year is a year of grace in bird study.) My head was shaken skeptically, and I smiled in a patronizing way, for a turtle-dove's nest on the ground was an unknown quantity in all my study of birds; but my friend declared, "Honest Injun!" and I left him to his obstinate opinions. But, hold! who, after all, proved to be the donkey? A few days later I myself stumbled upon a turtle-dove's nest in a clover-field, flat on the ground. Bird students, be careful how you dispute the word of these sharp-eyed tillers of the soil!

But for birds that invariably choose old mother earth for the foundation of their houses, commend me to the American meadow-larks. In this respect they are certainly groundlings, though not in a bad sense. All their nests are constructed on the same general plan, it is true; but the details are quite diverse, proving that architectural designs in the lark

guild of builders are almost as numerous as the builders themselves. My young farmer friend found a nest early in the spring, with not a blade of grass near it for protection, while the structure itself was arched over only a very little in the rear. Another nest was situated in a pasture, and was almost as devoid of roofing as was the first nest. But rather late in the spring a nest was found, hidden most deftly in the clover and plantain leaves, which were woven together in the most intricate manner so as to form a canopy over the cosey cot. At one side there was a tunnel, some two feet long, forming the only entrance to the apartment. The nest proper was arched over from the rear for fully one half its width. Not ten feet away was another lark's nest that was almost wholly exposed to the light and air. In the lark world there is evidently a good deal of room for originality. There seem to be many larks of many minds.

My quest for cuckoos' nests during the summer of 1892 was well rewarded, but I shall stop to describe only one of these finds. The young birds having left, I lifted the nest from the swaying branch on which it hung, and examined it. The foundation was composed of twigs and sticks intertwined and plaited together with some degree of skill, but it was the lining that stirred my interest. First, it consisted of a number of dead forest leaves from which the cellular texture had been completely stripped, leaving only the petiole, midrib, and veins; underneath this was a more compact carpet of the

same kind of leaves, of which the blade, instead of being stripped off, was perforated with innumerable small holes, making them look like extremely fine sieves. In some cases the blades seemed to be split, leaving the veins and veinlets exposed, so that one could trace their intricate net-work. Another cuckoo nest had both the stripped and perforated leaves, but fewer of each kind. Whether the birds themselves did the artistic work on these leaves or not, — that is a question. The stripping of the upper layer of their blades would allow the dust and scaly substance shed by the young birds, to sift through to the second layer, where it would not come in direct contact with the nurslings. The two carpets were laid, no doubt, in the interests of health and cleanliness.

But it is time to turn our attention to the children of the nursery. The life of young birds in the nest, — what a field for study! One thing they learn very early, probably almost as soon as they emerge from the shell; that is, to open their mouths for food. No tutor or professor needed for that! Most young birds soon become quite clamorous for their rations. Lowell must have looked into more than one bird nursery, or he scarcely would have thought of writing the lines, —

"Blind nestlings, unafraid,
Stretch up, wide-mouthed, to every shade
By which their downy dream is stirred,
Taking it for the mother-bird."

A nestful of half-callow younglings, standing on

tiptoe, craning up their necks, wabbling from side to side, opening their mouths to the widest extent of their "gapes," knocking heads and beaks together, and chirping at the top of their voices, - I confess it makes a picture more grotesque than attractive. By and by, as the pin-feathers begin to grow, the infant brood seem to feel an itching sensation, which causes them to pick the various parts of their bodies to remove the scaly substance that gathers on the skin and at the bases of the sprouting feathers. But how awkwardly they go about this exercise! Their heads seem to be too heavy for their long, slender necks, and go waggling and rolling from side to side, often missing the mark aimed at. However, the muscles of the nurslings are developing all the while. Soon they lift themselves to their full height, stretch themselves, jerk their tails higher than their heads in a most amusing way (you smile, but they don't), and then squat down upon the floor of the nest again. A day or so later the most advanced youngster feels the flying impulse stirring in his veins, and so, after stretching himself as previously described, he extends his wings to their utmost reach, and flaps them in a joyous way over his cuddling companions, sometimes rapping them smartly on the head. Soon there comes a day when he hops to the edge of the nest, looks out upon the wide, beckoning world like a young satrap, and flaps his wings with a semi-conscious feeling of strength. Ere long, encouraged by his parents, he spreads his wings, and takes a header

for the nearest twig. Why, his wings will bear him up on the buoyant air! He has graduated from the nursery and the grammar grade into the high school.

Every year has its eccentricities, so to speak; that is, the character of the weather and other modifying causes afford the faunal life an occasion for a development that is peculiar. Thus the observations made by the naturalist one year are not necessarily mere repetitions of those made other years. Nature is not often guilty of tautology. I yield therefore to the temptation to add a few chronicles made during the spring of 1893, which, I hope, will not destroy the unity of this article on bird nurseries. One day in June, while strolling through the woods, I heard the song of a red-eyed vireo. It was a kind of talking song, or recitative, as if the bird were discoursing on some favorite theme, and improvising his music as he went. His voice was so loud and clear that I could hear it far away, drifting through the green, embowered aisles of the woods. This vigorous chanson was a surprise, for I have never before known this vireo to remain in my neighborhood during the summer. He mostly hies farther north. But a still greater surprise lay in ambush for me a few days later, in one of my rambles through the woods. Suddenly there was a light flutter of wings near my head, and there hung a tiny nest on the low, swaying branches of a sapling.

That it was a vireo's nest was evident, for it was

fastened to the twigs by the rim, without any support below, swinging there like a dainty basket. Presently I got my glass on the bird herself, and found her to be a red-eyed vireo. That was my first nest of this species, and proud enough I was of the discovery. The outside of the little cot was prettily ornamented with tufts of spider-webs. As usual with this bird, a piece of white paper was wrought into the lower part of the nest. Three vireo's eggs and one cowbunting's lay in the bottom of the cup.

Every few days I called on the bird, going close enough only to see her plainly, without driving her off the nest. She made a pretty picture sitting there, one fit for an artist's brush, with her head and tail pointing almost straight up, her body gracefully curved to fit the deep little basket, and her eyes growing large and wild at her visitor's approach. At length, one day, I felt sure there must be little ones in the nest, and so I went very close to her; yet she did not fly. Then I moved my hand toward her, and finally touched her back before she flitted away. A featherless cow-bunting lay in the hammock, but the vireo's eggs were not yet hatched. A few days later the nest was robbed. Some heartless villain, probably a blue jay, had destroyed all the children. I could have wept, so keen was my sense of bereavement.

The cow-buntings imposed a great deal on other kind-hearted bird parents that spring. Almost every nest contained one or two of this interloper's eggs, and, as if Nature abetted the designs of the parasite,

these eggs were almost always hatched first. One wood-thrush's nest contained two bunting and three thrush eggs. As soon as the bantlings had broken from the shell, the buntings could be readily distinguished from the thrushes, for the former feathered much more rapidly than the latter. When the youngsters were about half grown, they crowded one another considerably in their adobe apartment, but, to all intents and purposes, they lived together in beautiful domestic harmony. At all events, no unseemly family wrangles came under my eye. By and by, on one of my visits, I found that the buntings had left the maternal roof (to speak with a good deal of poetic license), while the thrush trio still sat contentedly on the nest, and did not display any fear when I caressingly stroked their brown backs, but looked up at me in a naïve, confiding way that was very gratifying. Quite different was the conduct of the inmates of a bush-sparrow's nest, hidden in the grass at the woodland's border. The baby sparrows rushed pell-mell from their pretty homestead when I came near, leaving a bunting, which had been hatched and reared with them, alone in the nest. He was not nearly so far developed as his brothers and sisters, and had no intention of being driven from home.

But here is an instance more like that of the bunting-wood-thrush episode just described. A pretty basket, woven of fine fibrous material, swung from the lower branches of an apple-tree in the orchard of one of my farmer friends, and contained three

young orchard orioles and one cow-bunting. One day I procured a step-ladder and climbed up to the nest, when the bunting sprang out with a wild cry and toppled to the ground, while the young orioles, not yet half-fledged, merely pried open their mouths for food. Yet these birds, when grown, are fully as dexterous on the wing as their foster relatives, the buntings.

During the same spring some observations on youthful blackbirds were made. They may be of sufficient interest to register in this place. Did you know that a part of the heads of infant blackbirds remains bare a week or two after the other portions of their bodies are well feathered? This is true of the three species of my acquaintance, the purple grackles, the red-winged blackbirds, and the cow-buntings. The bald portion includes the forehead, part of the crown, the chin, and throat, and extends behind and below the ears, which are covered with a tiny tuft of fuzz. Had this unfeathered portion been red instead of black, the youngsters would have looked quite like diminutive turkeybuzzards. One may be pardoned for being somewhat puzzled over the childish conundrum, Why young blackbirds, of all the birds in the circle of one's acquaintance, must go bareheaded during the first few weeks of their life. By and by, however, the feathers grow out on this space as thickly as on the remainder of their bodies.

Strange that I have found so few black-capped titmice's nests, familiar and abundant as they are

in my neighborhood, both summer and winter; but my quest was rewarded in two instances during the spring of 1893, — the first nest being in the top of a truncated sassafras-tree. The snag was perhaps twenty feet high. On one of my visits the birds were hollowing out their little apartment. They would dart into the narrow opening, and presently emerge, carrying small fragments of partly decayed wood in their beaks and dropping them to the ground. Some weeks later, I climbed the tree (with much fear and trembling, be it said), but the birds had made the cavity so deep that I could not see the bottom, and break open their sylvan nursery I would not. The second titmouse nest was in a very slender branch of a sassafras-tree, — so slender, indeed, that it was a wonder the birds were able to make a hollow in it. At first it looked precisely like a black patch burned on the bough's surface. When one of the feathered atoms stood in the tiny doorway and looked out, she made a pretty picture, —one that would have put a throb of joy into an artist's bosom.

Yet there is another picture that I should prefer to have painted, not on account of its attractiveness, but on account of its quaintness; it was the nest, eggs, and young of a pair of green herons in an orchard. The nest was built high in an apple-tree, and was only a loose platform of sticks. Although anything but an expert climber, I contrived to scale that tree three times to satisfy my curiosity. The first time there were four eggs of a greenish-blue

cast — not jewels by any means — in the nest. On my second visit four of the oddest birdlings I ever looked upon greeted me with wide-open eyes and mouths. They were covered with light yellowish down, and the space about the eyes was of a greenish hue, — one of the characteristic markings of the adult birds. When they opened their mouths, expecting to be fed, their throats puffed out somewhat like the throats of croaking frogs, making a good-sized pocket inside to receive chunks of food. The thought struck me that perhaps the pocket was designed as a sort of temporary storage place for victuals until the nestling was ready to swallow them. The birds made a low, quaint noise that cannot be represented phonetically. Indeed, the picture they made was slightly uncanny, so I did not linger about it overlong.

A week later my third and last call on the heron household was made. What an odd spectacle it presented! The young birds had grown wonderfully, though still covered with down, with very little sign of feathers. As my head appeared above the rim of the nest, they slowly craned up their Indiarubber necks, then rose on their stilt-like legs, and looked at me with wondering, wide-open eyes that gleamed almost like gold. The spectacle made me think of ghouls, incongruous as the simile may seem. When I touched one of the birds, it huddled, half-alarmed, down to the bottom of the nest. Another slyly stalked off to the edge of the platform, upon a thick clump of twigs and leaves, eying me

keenly as he moved away. I hurriedly climbed down, lest he should topple to the ground and dash himself to death; and thus, while I was on the brink of causing a tragedy, yet, as a sort of emollient to my conscience, I consoled myself with the thought that I had really prevented one.

Another interesting discovery of the same spring was a killdeer plover's nest, which my farmer friend across-lots found in a clover-field. There had been a heavy rainfall, making the ploughed ground as soft as mush; but my tall rubber boots were mud-proof, and so I went to pay the plovers my respects. This was after six o'clock in the evening. I found one little bird in the shallow, pebble-lined nest, and three eggs, one of them slightly broken at the larger end. The plover nestling was an odd baby, with its large head, fluffy, square-shouldered body, and slender beak sticking straight out. A small piece of the egg-shell still clung to its back. On taking the tiny thing into my hand, what was this I saw? It had only three toes on each foot, instead of four, as most birds have; and those three were all fore toes, while the bird had no hind toe at all. Why the plover should have no hind toe is an enigma; but then, the ostrich has none, either, and only two in front, — "every species after its kind."

Early the next morning two more youngsters had broken shell, and come forth to keep their more precocious brother company. The eldest was marked quite distinctly about the head and neck like its parents, having the characteristic white and black

bands, thus early proclaiming the persistence of its type. When I set it down - for I had lifted it in my hand — it started to run over the soft ground, enhancing its speed by flapping its tiny wings. The picture was indescribably cunning. The bird was so small that it looked like a downy dot scudding over the undulations of the ground. Think of a baby only about fifteen hours old running away from home in that manner! I caught the infantile scapegrace and placed it back in its cradle, where it remained. During the night there had been a very heavy fall of rain, and yet these youngsters, small as they were, had not been drowned, having doubtless been covered by their parents. At six o'clock in the evening they had all left the nest, and, search as I would, I could find no clew to their whereabouts, though the parent birds were flying and scuttling about with loud cries of warning to me to keep my distance. Thus it would seem that young plovers, like young partridges, grouse, and ducks, leave the nest at a very tender age.

Before closing, I must mention something odd that befell a kingfisher's nest. A year prior I had found a nest in a high bank in a sloping field, where the water had washed out a deep gully. In passing the bank one day I noticed that it had been partly broken down; there had been a landslide on a small scale, caused by the washing of the heavy spring rains. Half way to the top, on a narrow shelf, lay a clutch of kingfisher's eggs, some of them broken by the caving of the bank. The landslide had occurred

after the cavity had been made and the eggs deposited, thus blasting the hopes of the kingfishers. However, they had not become despondent, for, later in the season, they burrowed a hole for an underground nursery in another part of the bank.

III.

BIRD HIGH SCHOOLS.

It is not to be supposed that there is a regularly graded system of instruction in the school-life of the birds. There may be method in their learning, but it would be difficult to state positively just where the primary, grammar, high-school, and college grades merge into one another, or when diplomas of efficiency are granted, if granted at all. But that there is something of a system of pedagogy among birds, and that the juniors do receive instruction from their seniors, no observer of feathered life can doubt for a moment. In the systems of human instruction the child-life of the young learner usually ends with his high-school course; he then stands at the threshold of young manhood, ready to do a good deal of wrestling with his problems on his own account. Taking that fact as our cue, we should say that the high-school instruction of the youthful bird begins when he leaves the nest, and ends when he is able to fly with dexterity, and provide for his own support, at least in the main. It is not probable that the lecture system prevails in the bird community,

or the method of class instruction now in vogue, or that books and charts and blackboards are used; but the instruction is chiefly individual, and is carried on mostly by example, coercion, and urgent appeal. There is not an inexhaustible number of branches to be pursued by the little undergraduates in plumes; but their efforts at obtaining an education consist chiefly in mastering three grand accomplishments, — flying, feeding, and singing.

If ever you have seen a bevy of young red-headed woodpeckers, led by several of their elders, taking their wing-exercises, choosing a certain tree in the woods for a point of departure, and then sailing around and around with loud cries of delight, you must have concluded that it was a veritable class in calisthenics. One seldom has an opportunity to see young birds taking their first lessons in flight, but it is worth one's time and patience to be present at such a recitation. The parents set the example by flying from the nest to a perch near by, and then coax and scold their children to follow their example. If the little learners hesitate, as they usually do, their impatient teachers exclaim: "Why, just try it once. You never will learn to fly any younger. you will only spread your wings, let go of the rim of the nest, and venture out on the air, you will find that it will bear you up. Don't be afraid." perhaps the pupils complain that it makes their heads dizzy to look down from their awful height. Then the teachers pooh-pooh at their fears, and cry condescendingly, "The idea of being afraid! Why,

just see here!" and they mount up into the air, poise, careen, and perform other extraordinary feats, while the youngsters gaze at them in wide-eyed wonder. At last, after much persuasion and many half-attempts, one of the youngsters spreads his pinions and flutters laboriously until he scrambles upon the nearest twig, with bated breath and throbbing pulses. He is frightened half to death, but he has found that the friendly air will support him if he makes proper use of his wings, and so he will soon make another effort, and another, until he begins really to enjoy the exercise. However, several days may elapse before the youngest and weakest member of the class can muster sufficient courage to take his first aerial journey.

Some species of birds graduate from the nest much sooner than others. In one case I observed that a family of goldfinches remained in the nest just seven days after a family of bush-sparrows, hatched on the same day, had taken their flight.¹ The yellow-billed cuckoo has given me no little surprise in this respect. When he first creeps out of his shell apartment, he is a callow, ungainly infant, black as coal, with a sparse covering of stiff bristles; but almost before a week has passed, he has hopped from his washed-out cradle to try the realities of the great world around him. Why the agile little goldfinch should remain in the crib so much longer than his less dexterous fellow-pupil,

¹ This episode is referred to in the chapter on "Nest-Hunting."

the cuckoo, is a problem of bird school-life that I must leave for solution to wiser heads.

Having gone from the nest, the young bird has not yet learned all about the art of flying; no, indeed! He must become perfect by practice. Many a blunder will he make. At first he cannot always nicely calculate the distance to the twig that he has in view, and so he fails to give himself the proper propulsive force; he misses his footing by going too far, or not far enough, and then where he will alight is a question of what he happens to strike first. Probably a wild, desperate scramble will ensue, which ends only when the youthful novice has fallen plump upon the ground. He may be very much alarmed; but as soon as he recovers his breath, his courage rises, and he tries again.

Although the young birds have the whole world for their larder, with victuals just to their taste constantly at their elbow, they must learn even the art of eating, and, until they do so, they demand that their parents be their caterers. For several weeks after they have passed the first term of school-life, they will still sit on a limb, open their mouths, twinkle their wings, and allow their patient victual-lers to thrust morsel after morsel down their throats. My opinion is that the patience of their parents wears out after a time, and they leave the overgrown youngster to paddle for himself. How proud he must be of the exploit when he catches his first insect and successfully stows it away in his maw! In a deep, quiet glen I watched a

family of young phoebes and their parents catching insects on the wing. It was amusing. The old birds evidently felt that it was about time for their pupils to learn to provide their own victuals, but the youngsters stoutly demanded that their luncheons be brought them in the accustomed manner. They must have noticed that the old birds would occasionally catch an insect and dispose of it themselves. Once when the parent bird darted out for a small cabbage butterfly, a young fellow swooped down at her with such force that she let the insect squirm out of her bill and flutter to the ground, and thus make good its escape before she could recover it. Both birds lost their dinner through the greed and rashness of the little gourmand. Another time an old bird caught a yellow butterfly, dashed to a limb, and quickly gulped it down, wings and all, before any of the presumptuous high-schoolers could The bearing of the bird was most reach him. laughable. Finally, several of the young birds darted out into the air for passing insects, proving that they were taking lessons in that fine art; but their gymnastics were far from perfect, and they hit the mark scarcely half the time.

With most young birds music is a part of their high-school curriculum. Perhaps you have thought that they learn their lessons in vocal music without special instruction, but this is not always the case. Observation proves that the old birds have them under tutelage, setting them lyrical copies, which they are expected to learn by frequent rehearsal.

I have myself observed such a performance in the case of the wood-pewee, as described in the chapter on "Midsummer Melodies." First attempts are crude and awkward, although the tones may be very fine. It requires frequent drill to bring the vocal organs under perfect control, just as is the case with human singers. If you have listened to the squeaking, chattering, twittering medley of young songsparrows, you have realized how much practice is necessary before the would-be vocalists will be able to execute the wonderful trills of which they are master when they graduate from the musical conservatory.

I must tell you of a little bird high-school class over which I once assumed charge. It consisted of three wood-thrushes, two bluebirds, and a brown thrasher, all of which were taken from the nest before they were ready to fly, and confined in a large wire cage. Very soon they learned to take food from my hand. But in many things that are essential to bird life and bird weal they had no tutors and no drill-masters, and therefore had to learn them as best they could. Yet it was surprising how soon they gained proficiency. Without a single copy from adult birds, all of them were able to fly about from perch to perch in a few days. It was not more than a week before they began to pick in an awkward way, but after more than five weeks they would still open their mouths and take food from the hand. The mechanical act of eating was something they had to learn by slow degrees. While

they could readily pick up a tidbit, it seemed to be a difficult task to get it back far enough into the mouth to swallow it. This was especially true of the thrasher, whose bill was long. How he would toss a morsel about, pinch it, fling it away, catch it up again, and pound it against a perch, before he could work it back into his capacious throat!

They were amusing pets, those feathered pupils of mine. From them I have gained an insight into bird character which could have been gained in no other way. The difficulty in observing birds in the wild state is, you cannot study them at close range, and hence cannot watch their development from day to day. None the less interesting were my little pupils because they had to depend on their own wits and learn their lessons without a pedagogue. How did they learn to bathe without being shown how! They learned it, that is sure; and they went through the exercise precisely as birds do in the wildwood. They would leap into the bath-dish, duck their heads into the water, flutter their wings and tails until thoroughly rinsed, and then fly up to a perch to preen their bedrenched plumage. But they made some mirth-provoking blunders. One day a wood-thrush got astride of the rim of his bath-tub, one leg outside and the other inside, and in that interesting position tried to take his ablution. He looked exceedingly droll, and seemingly could not understand why he did not succeed better. Another time the thrasher remained outside of the bath-dish, and thrust his head over the rim into the water, squatting on the sand and twinkling his pinions. But the time came when all the birds discovered of their own accord that the proper way was to leap right into the lavatory.

How early in life do juvenile birds begin to sing? That is a question, I venture to say, that very few students of bird life would be able to answer. It may be difficult to believe — if my own ears had not heard, I should be very skeptical of the accuracy of the assertion — but my wood-thrushes had not been in my care more than three or four weeks before one of them began to twitter a little song. He could not have been much more than five weeks old. This is all the more remarkable when it is remembered that there were no adult thrushes within a half-mile of the house. He seemed to discover that he had a voice, and thought he might as well use it.

Ah, yes, and sad to relate, my high-school pupils soon learned to quarrel, and that without the example of their elders. When I threw a billsome morsel on the floor of the cage, several of them would make a dive for it, and soon get into a wrangle. "It's mine! it's mine!" each would proclaim by his greedy behavior. Then perhaps two would seize it, and tug at it like boys fighting for an apple. Or if one contrived to get it first, the rest would try to wrench it from his beak, and thus they would pursue one another about in a wild chase. The thrasher, being younger than his fellows, was for a time cheated out of every choice morsel he

secured; but he finally learned to help himself and swallow his victuals instanter. Two of the thrushes, probably males, seemed to have a mutual grudge. They would pursue each other until the fugitive would turn and stand at bay, snapping his mandibles in a savage manner, as if they were worked by steel springs. I regret being compelled to publish these pugnacious tendencies in my beloved pets; but I prefer giving a realistic rather than a fictitious or roseate sketch of the school-days of these pupils in plumes.

IV.

BIRD WORK.

"LIFE is real, life is earnest," might be just as truly said of "our little brothers of the air" as of us, their big brothers of the soil. If you think that their whole career consists of nothing but play and song and bounding joy, you have seen very little of the bird life around you. For the mother bird, at least, the whole period of nesting, sometimes extending over several months, is a time of drudgery, anxiety, and, far too often, of disappointed hopes. I have heard a bird mother's wail that went like iron into my soul, and told me all too plainly that it had come from a bereft and broken heart. When we remember how many tragedies occur in the feathered community, we scarcely care about singing, "I wish I were a little bird." Had you witnessed the unutterable agony of a pair of vellowbreasted chats one spring, when their four pretty bairns were stolen by some heartless buccaneer, you would have thanked the Pleiades, Ursa Major, Ursa Minor, and all your other lucky stars, that you were a man or woman and not a bird.

"Oh! it would be so pleasant to fly and tilt in the air, to dash from twig to twig, to make long aerial voyages to foreign countries!" Do I hear you say that? Wait a moment. Have you ever thought that even the long, bounding flight of the swallows and swifts, accomplished apparently without effort, may sometimes become a weariness to the flesh, especially when insects are scarce and their maws empty? Then, those long nocturnal journeys that birds make during the migrating season may often tax their strength to the utmost. Indeed, if you will listen to their feeble chirping, as they sweep overhead through the darkness, you will often detect a note of fatigue running through it, as much as to say, "Ah, I wish we were at our journey's end!" No, bird life is not all roseate. It has its humdrum and drudgery, its wear and tear, its prose as well as its poetry, its hard realism as well as its romance.

One of the tasks of bird life is the building of nests. It is true, the birds always do this work with a zest that makes it seem half play; but, after spending a day in gathering material and weaving it into the nest, scarcely taking time to stop for meals, I have no doubt the little toilers are ready to retire when bedtime comes. Have you ever watched these

little artists constructing their nests? They first lay the foundation, which is usually made of rather coarse material, and is more or less loosely woven; and then they proceed to build the superstructure. Some birds, like the robin and the bluebird, will have their mouths full of material every time they come to the nest; while others, such as the dainty warblers, will return with a single fibre. Usually the bird leaps into the cup of the nest, and deftly weaves in the new material with its bill; and then shifts around with a quivering motion of body and wings, to give the structure proper shape and size. The nest must be made to fit the body of the bird like a glove, so that she may rest easily in it during the long period of incubation. The robin and the wood-thrush bring mud and clay; this they mix, no doubt, with their own saliva, which gives it its viscid character. The dainty, blue-gray gnat-catcher collects lichens of various kinds, with which she decorates the high walls of her compact little cottage. Does this tiny artist sometimes build nests just for fun or æsthetic effect? I watched the building of two nests one spring that were never used. With what a graceful touch the feathered dots laid the lichen bricks in the walls!

The hatching of the eggs must be a severe tax on the patience of the mother bird, for the principal part of this work devolves upon her. Sitting hour by hour upon the nest, looking out upon the wide spaces of air waiting to be conquered by her active wings; with nothing except hope to feed her mind; with not even a book or a newspaper to read,—

well, here is a chance to let patience have her perfect work. Then think of her uneasiness at the approach of every foe. It is work; it is not mere idleness. As for her lord, it may seem only like holiday sport to sit in the tree-top and sing all the livelong day, to beguile the weary hours of his sitting mate. But perhaps it often takes on the hue of work, too, when singing becomes a duty. Small wonder, if the choralist's vocal chords often become jaded and sore, while there may be danger of bringing on throat or lung trouble. Besides, he must often carry a dainty morsel to his spouse when he would much prefer to eat it himself. Then, he must take his turn on the nest while his partner goes off for a "constitutional" to get the stiffness out of her joints, or gathers a relay of food and preens her ruffled plumes.

One of the most unpleasant tasks of the time of incubation and brood rearing is the warding off of enemies. And they are numerous. No feathered parents can feel sure that they shall be able to tide their little family safely over this perilous period. Have you ever seen the plucky wood-pewee engaging in a contest with that highwayman in feathers, the blue jay? How he dashes at the bloodthirsty villain, snapping his mandibles viciously at every onset, and sometimes pecking a feather from his enemy's back! Nor will he give up the battle until the jay steals off with a hangdog expression on his face. The little warbling vireo is no less game when the jay comes too near his precincts.

One day in spring I was witness to a curious incident. A red-headed woodpecker had been flying several times in and out of a hole in a tree where he (or she) had a nest. At length, when he remained within the cavity for some minutes, I stepped to the tree and rapped on the trunk with my cane. The bird bolted like a small cannon-ball from the orifice, wheeled around the tree with a swiftness that the eye could scarcely follow, and then dashed up the lane to an orchard a short distance away. But he had only leaped out of the frying-pan into the fire. In the orchard he had unconsciously got too near a king-bird's nest. The king-bird swooped toward him, and alighted on his back. The next moment the two birds, the king-bird on the woodpecker's back, went racing across the meadow like a streak of zigzag lightning, making a clatter that frightened every echo from its hiding-place. That gamy flycatcher actually clung to the woodpecker's back until he reached the other end of the meadow. I cannot be sure, but he seemed to be holding to the woodpecker's dorsal feathers with his bill. Then, bantam fellow that he was, he dashed back to the orchard with a loud chippering of exultation. "Ah, ha!" he flung across to the blushing woodpecker; "stay away the next time, if you don't fancy being converted into a beast of burden!"

A large part of a bird's toil, after there are children in the nest, consists in providing victuals for them. For this purpose the whole country around must be scoured, and sometimes long journeys must

be made. I have watched a kingfisher flying again and again from a winding creek in the valley to her nest on a hillside nearly a half-mile distant, with a minnow in her bill, while the sun was pouring a sweltering deluge upon the fields. It kept her busy every moment to supply the imperious demands of her hungry brood in the bank. A common field-bird, which I watched one day for a long while, would often return to her nest every minute with an insect. Many, many times have I obeyed Lowell's injunction,—

"Come up and feel what health there is
In the frank Dawn's delighted eyes,
As bending with a pitying kiss,
The night-shed tears of Earth she dries."

But even at that early hour the feathered toilers have always been ahead of the human wage-workers in beginning the labors of the day. The nestlings must have a twilight breakfast; and then, in the evening, as long as the gloaming lasts, they noisily demand just one more mouthful for supper.

Young birds are ravenous feeders. They seem to live to eat, and have no thought of eating to live. For an hour and a half, one August day, I kept watch of a nestful of bantlings, and during that time the parent birds were so shy that they fed their infants only twice. At last the little things became fairly desperate for food, springing up in the nest and opening their mouths with pitiful cries every time the breeze stirred the bushes about them.

They were so famished that I hurried away lest they should go to preying on one another, for they would sometimes greedily seize one another by the bills or heads, and try to gobble one another down. Incidents like this prove that the old birds must be on the jump every moment to procure a sufficient supply of food for their young. Even after they have left the nest, the juvenile members of the family must be fed for several weeks. As long as mamma and papa will get their luncheons for them, they will make little effort to help themselves. I have seen the dainty little accentor feeding a great, overgrown mossback of a cow-bunting, which had to "juke" down to her like a giant to a dwarf to receive the morsel she offered him. What a drudgery it must have been to collect victuals enough to fill his capacious maw! Think of a toil-worn, care-fretted little mother feeding a strapping boy that will not work!

Moreover, adult birds often are kept busy for hours supplying their own craving for food. One April day a hooded warbler, natty little beau, near an old gravel-bank in the woods, was watched by me for an hour and a half. During that time he must have caught an insect almost every minute, and sometimes no sooner had he gulped down one than he made a swift dash for another. Had he not been so very, very handsome, I should have dubbed him a gourmand.

At certain seasons of the year what an active life the red-headed woodpeckers are compelled to lead, With intervals of scarcely more than a few seconds, they bound out from a perch, seize an insect on the wing, and wheel back again. For hours this half work, half frolic is kept up. By the way, almost all birds sometimes engage in this flycatcher game of taking their prey on the wing. The Baltimore orioles, the bluebirds, the yellow-bellied woodpeckers, the crested tits, the chippies, the indigobirds, and even the white-breasted nuthatches and English sparrows, to say nothing of many species of warblers, catch insects in this way.

Many birds have to "scratch for a living," and that in a literal sense. There is the towhee bunting, for example. Instead of getting down on his breast, however, like the hen or the partridge, he stretches himself up on his legs as if they were stilts, and then bobs up and down in an amusing fashion, while he scatters leaves and dirt to side and rear. I do not know whether the robins scratch or not, but they often jerk the leaves from the ground with their bills, and hurl them away with a half-disdainful air. Several young wood-thrushes kept in a cage removed obstructions in the same way.

Even the merry bobolink, the Beau Brummel of our meadows and clover-fields, cannot spend every day

> "Untwisting all the chains that tie The hidden soul of harmony;"

for the time comes when he must do the work of a staid husband and father, and help to take care of

the growing brood. With all his pirouetting in the air, he carries in his bosom an anxious heart, as you will quickly see if you go too near his snuggery in the grass. The wild scramble in which birds of all kinds often have to engage, in order to secure a refractory insect, proves that there is ample room for the play of their best energies. Thus we see that the birds have plenty to do besides rollicking, singing, enjoying gala-days, and taking excursions to gay watering-places. Like their human brothers and sisters, they must toil patiently on "through the every-dayness of this work-day world." They, too, may have their literature — unwritten, however — on the "dignity of labor."

V.

BIRD PLAY.

How strange it is that animals never laugh! If you watch a group of monkeys playing their antics, you will find their faces as sedate as a judge's, save, perhaps, a merry twinkle of the eye. Comical as their gambols are, one would think they would break into convulsions of merriment. True, animals have various ways of giving vent to their exuberant feelings, but this is done very slightly by means of facial expression. Their risibles must be meagrely developed. What has been said in regard to animals in general is also true of birds, whose eyes often twinkle and are intensely expressive, but whose

countenances proper reveal very little of the emotion swelling in their breasts.

Yet by the movements of their bodies you can easily read their feelings. You can tell at a glance by the conduct of a bird whether or not it is alarmed at your presence, or whether it is engaged in a frolic or in watching a wily foe. How different is the behavior of most birds in the breeding-season, with a nest near at hand, from their demeanor at other times! Look at that brown thrasher perched in a tree-top on a spring morning, singing his pæan to the surrounding woodland, and notice how fearless he appears. Contrast his manners two months later when he goes skulking through the tanglewood, afraid to be seen. Conceal their secret as they may, an expert student of birds can almost always tell if there is a nest in the neighborhood.

It is, therefore, by their conduct rather than by their facial expression that birds reveal their love of play. That they do have their frolics, no one can doubt. Much of their time is occupied in labor, and that often of the most serious, if not arduous, kind, and they frequently combine toil and play; but there are times when they seem to give themselves up to unmixed sportiveness. There is not much system in their games, so far as I have observed. They mostly engage in frolics of a roughand-tumble kind, for the pure love of the fun, and perhaps with no thought of winning a prize.

It is possible, however, that the company of redheaded woodpeckers I watched one day in the woods were having a genuine flying-race. One tree was selected as a point of departure, from which they would start and fly around in a wide circle,—perhaps their race-track,—always returning to the same tree with loud chattering, which sounded like shouts of applause. This exercise they kept up for hours, always starting from the same tree and describing nearly the same circle. If it was not a contest of speed, I am at a loss to know what it was.

The woodpeckers, especially the youngsters, have another game that has a decidedly human flavor; it is the game of bo-peep among the trunks and branches of trees. A red-head will shy off from his companions, conceal himself somewhere behind a tree-trunk, and then peep from his hiding-place in an exquisitely comical way, until he is espied by some sharp-eyed fellow-frolicker. A vigorous chase will follow, as pursuer and pursued dash wildly away among the trees. Sometimes, when the fugitive is too hotly pursued, he will stop and keep his companion at bay by presenting his long, spearlike bill as a sort of bayonet.

Another tree-climber is the brown creeper. I have described many of his pranks in the first chapter of this volume. One November day I witnessed a performance that beats the record. Two creepers were hitching up the trunks of the trees in their characteristic manner, when one of them suddenly dropped straight down about fifteen feet, scarcely more than an inch from the trunk of the

tree; then, instead of alighting, he darted straight up again the same distance, fluttered a moment uncertainly on the wing, and then dropped again to the foot of the tree, where he alighted, and resumed his upward march. But that was not all. Presently his companion, not to be outdone, began to whirl around and around the tree, descending in a spiral course until he reached the foot. There he tarried a moment to take breath, and then, much to my surprise, whirled himself up in the same way, a distance of perhaps twenty feet, accomplishing it in four or five revolutions. But, as if to distance all creepers' pranks ever witnessed before, he descended again in the same spiral course. These performances can be interpreted only as ways in which to give vent to the spirit of frolic in the creeper nature.

On the same day my dancing dot in feathers, the golden-crowned kinglet, performed one of his favorite tricks, which is not often described in the books. You will remember that in the centre of the yellow crown-patch of the males, there is a gleaming golden speck, visible only when you look at him closely. But when the little beau is in a particularly rollick-some mood, or wants to display his gem to his mate or kindred, he elevates and spreads out the feathers of his crest, and lo! a transformation. The whole crown becomes golden! That gleaming speck expands until it completely hides the yellow and black of the crown. It has been my good fortune on several occasions to see the ruby-crowned kinglet

transfigure himself in the same way, except that his entire crown became ruby. Probably the little Chesterfield that can exhibit the most brilliant coronal wins the sweetest damsel in the kinglet community for a wifie.

Perhaps, as a rule, our winter birds find the season rather cold for play; yet they often frolic in the snow like children, even when they do not stalk through it in quest of food. This is especially true of the snow-birds and tree-sparrows. Birds are especially fond of splashing in water. Even in the winter-time, when it flows ice-cold into the stream or pond from the melting snow on the banks, certain birds will plunge into it, and enjoy their bath for many minutes. They do not seem to be satisfied with merely wetting their plumes, but remain in the water, twinkling their wings and tails, much longer than is actually necessary. Several times in the autumn I have seen a large company of warblers of different species taking a bath in a woodland pond. How they enjoyed their ablutions! Again and again they would return to the water, as if loath to quit it.

To my mind, the flicker is one of our most playful birds, spite of his staid looks. I have seen a half-dozen of these birds on a single tree, scudding about after one another and calling, Zwick-ah! zwick-ah! in their affectionate way. Not infrequently two of them will face each other, and begin bowing in a vigorous style, turning their heads dexterously from side to side to avoid collision. This

is sometimes kept up for several minutes. It is very comical, the only drawback being that the birds themselves do not laugh. Why they should engage in so ridiculous a performance with so serious an air, is a problem that still belongs to the unknown.

A cut-throat finch, a pet, was, as a rule, a very sedate little body, but one day he had to come down from his pedestal to get rid of his surplus of feeling. This he did by dancing a sort of jig to his own music, swaying his body to and fro in a most laughable way. On another day an English sparrow flew upon his cage, which was hanging on the veranda, when "Pompey" turned his head toward his visitor, burst into song, and bobbed his head from side to side. No doubt the sparrow felt that he was receiving an ovation.

A most laughable incident occurred one day in my large cage of birds. "Flip," a fine young wood-thrush, was rehearsing his song. A young thrasher leaped up beside him on the perch. The two birds turned their heads to each other, and looked into each other's eyes a moment; then Flip opened his mouth at his visitor, and broke into song, the tones coming right out of his gold-lined throat. All the while he jerked his head from side to side or up and down in perfect time with his music, his eye gleaming intelligently, as if he enjoyed the fun. Even my loud outburst of laughter did not put a stop to the little farce. Flip was a bright bird. He afterward had a cage all to himself, and regaled his hosts with many a cheerful song, such as only the wood-thrush is master

of. Occasionally he would leap to the end of his cage, open his mouth wide at "Brownie," whose cage stood next to his, and sing a comic song; at least, it seemed comic.

These incidents, although they do not prove that birds have elaborate games, do prove that they possess the play spirit, and no doubt their pastimes and amusements are relished fully as much by them as ours are by us; perhaps more so.

VI.

BIRD DEATHS.

IF only some master dramatist could write the tragedies of bird land! They would be highly exciting, and would afford ample room for the play of genius; for there are adventures and disasters without number. Perhaps it is on account of the many reverses that there is so often a pensive strain in the songs of the birds, — a minor chord running like a shimmering silver line through the weft of the woodland music. Robert Burns, in his "Address to a Woodlark," touched the very marrow of bird sadness, and pleaded with the little singer to cease its song, or he himself would go distracted,—

"Say, was thy little mate unkind,
And heard thee as the careless wind?
Oh! nocht but love and sorrow joined
Sic notes o' wae could wauken.

"Thou tells o' never-ending care,
O' speechless grief and dark despair;
For pity's sake, sweet bird, nae mair!
Or my poor heart is broken."

If Coleridge had studied the birds more carefully, and acquainted himself with their griefs, he never would have written, in mockery of Milton's "L'Allegro,"—

"A melancholy bird! O, idle thought! In nature there is nothing melancholy!"

I have seen a pair of birds whose little brood had just been cruelly slaughtered, and my heart bled for them when I saw that their anguish was too great for expression. Perhaps birds that have been bereaved soon forget their sorrow, and yet I doubt it; for if you listen to the minor treble of the blackcapped chickadee, you cannot help feeling that he is singing a dirge for some long-lost love, or, if not that, may be recounting, by some occult law of heredity, the story of the many sorrows of his ancestors from the beginning down to his own generation. What ravishing sadness there is in the songs of the white-throated and white-crowned sparrows! The bluebird is always sighing as he shifts from post to post, and nothing could be more melancholy than the call of the jay in autumn. The crow at a distance complains of his disappointment, while the wood-thrush, in his evening and morning voluntaries, rehearses the sad memories of his life. Keats speaks of the "plaintive anthem" of the nightingale, and

Thomson declares that even the merry linnets "lit on the dead tree, a dull, despondent flock."

It would be difficult to arrange a "table of mortality" for the birds. However, as they know nothing about life insurance, there is no call for such a compilation; but even if the statistician could state the number of deaths, there is no arithmetic that could compute the heartaches and heartbreaks experienced by "our little brothers of the air." "In the midst of life we are in death," might well be put into the litany of the birds. If they had burial-grounds, there would be plenty of employment for the sexton and some grave "Old Mortality."

The elements themselves sometimes play sad havoc with the birds. Mr. Eldridge E. Fish, of Buffalo, N. Y., tells of an October storm in which many golden-crowned kinglets were dashed to the ground, while others flew against windows of houses in which lights were left burning. The storm was so severe that the little voyagers, travelling southward by night, were compelled to alight, and thus many of them were destroyed. The same writer speaks of a cold rain which froze as it fell, coating everything with ice, and thus cutting off the birds' supply of food, so that many bluebirds perished. To my certain knowledge, robins, which breed very early in the spring, sometimes are frozen to death while hugging their nests, when a cold wave swoops from the north. The same calamity sometimes overtakes the crossbill during the winter in the forests of Canada. Apparently even Nature herself is not always a tender

mother to her offspring. Do not ask me why, for I am not writing a philosophical thesis.

Birds have many natural enemies. I can still hear the cries of a young bird that a sparrow-hawk had seized in his talons and was bearing overhead. What a savage cannibal he seemed to be! Not for anything would I cast undeserved odium on the reputation of any bird, but I fear very much that the blue jay is both a robber and a murderer. In the season when eggs and young birds are in the nest, he has a sly, hang-dog air, which, to my mind, proclaims not only a guilty conscience, but also a sinister purpose. At other seasons he seems to have an open, frank manner. It is true, I myself have never seen him in the very act of robbing a fellow-bird's nest, but I have often seen pewees, vireos, sparrows, and goldfinches charge upon him with desperate fury when he came in the vicinity of their homesteads. Indeed, all the smaller birds seem to have a mortal terror of him, which can be accounted for only on the ground that he is known to be a highwayman.

A farmer friend, who loves the birds, and has none of the unreasoning prejudice against them sometimes displayed by country folk, told me that he once saw a blue jay pounce upon a chippie's nest, snatch up a callow bantling in his bill, and fly off with it across the field to his nest. In a few moments he returned, and bore away another nestling. By this time the farmer's ire was aroused, and he got his gun and put an end to the feathered brigand's life on his return for the third mouthful. This is more than circum-

stantial evidence. Yet in defence of the handsome rascal it may be said that he does good in other directions, for he rids the earth of many pestiferous insects. Gladly would I acquit him of all blame if that were possible.

Mr. Burroughs thinks that birds which have suffered at the blue jay's hands—or, rather, beak—often retaliate by destroying the jay's eggs. He found a jay's nest with five eggs, every one of which was punctured, apparently by the sharp bill of some bird, with the sole purpose of destroying them, for no part of their contents had been removed. He suggests that in the bird world the Mosaic law may be, "An egg for an egg," instead of "An eye for an eye."

The life of young birds hangs on a very brittle thread. A kind of Damocles' sword seems to be dangling over them. What a "slaughter of innocents" in a single season! I think that of the many nests I found during the spring of 1892 fully half were raided. How often, on finding a nest, I have resolved to watch it until the young birds were ready to leave; but on going back a few days later, the cradle was rifled of its treasures. These frequent "tragedies of the nests" make the bird-lover sick at heart. It is no paradox to say that many birds are killed before they are born.

Birds often meet with fatal accidents. They sometimes impale themselves on a thorn, or creep into places in thorn-trees from which they cannot extricate themselves. A robin hung itself one spring

by a kite-string that swung in a loop from the roof of my house, — a case of involuntary suicide. nuthatch that I saw one day in the woods had its leg broken, and I could not help thinking of its lingering agony before it would starve to death. A pet nonpareil, a dear, bright-hued little fellow, was well and happy one evening; but the next morning he lay dead on the bottom of the cage, perhaps the victim of a convulsion. Another pet nonpareil was not in good health; so I thought a bath in tepid water might be good for him; but alas! the ablution proved too much for the little invalid, which, in spite of our utmost efforts to save his life, succumbed to the inevitable. A like fate befell a young turtledove which a neighbor found in the woods and brought me for a gift.

But the cause of a great deal of mortality among birds is man's inhumanity to them. The thirst for blood seems to be inherent in many coarse natures, and as killing a fellow-man is illegal and almost sure to be summarily punished, many men gratify their greed for gore by slaying innocent birds and animals.

"Butchers and villains, bloody cannibals!

How sweet a plant have you untimely cropped!

You have no children, butchers! if you had,

The thought of them would have stirred up remorse."

The small boy with a sling or a spring-gun or an air-rifle is a source of much grief to the birds. He even kills the tiny kinglets that flit to and fro in the trees bordering our streets, and seems to think it

sport. More senseless and wicked still was the fashion in vogue a few years ago, perhaps not yet quite obsolete, which compelled the massacre of thousands of bright-hued birds for feminine — I should say unfeminine — adornment. To say nothing of the "loudness" and bad taste of such a fashion, it is extremely unwise to put birds to death, for no one can compute the number of injurious insects they annually devour. A bird on the bonnet means so much less bread on the table. A bird in the orchard is a sort of scavenger and pomologist combined, and does his share in giving you a dish of fruit for dinner. The scarlet tanager looks like a living ruby in a green tree; but - I speak bluntly - it looks like a chunk of gore on a woman's bonnet. In behalf of good taste and the birds, I enter my protest against this barbaric custom.

True, birds have elements of the Adamic nature in them. Many of them do relish forbidden fruit, and must be driven off, lest they rifle your cherry-tree; but it is seldom necessary to kill them, even then, especially those that live wholly on insects and fruit.

A correspondent once sent me a number of queries. How do birds come to their "last end"? Do none of them die natural deaths? If they do, why do we never, or at least very rarely, find dead or dying birds in the fields and woods? My response to these questions is: Very few birds die natural deaths, — that is, merely of sickness or old age, — though a few of them may. When a bird

becomes feeble or is crippled, it falls an easy prey to a prowling hawk, owl, shrike, eagle, or cat. Should a bird escape all these enemies, and finally lie down and die in a natural way, it would doubtless scon be found and devoured by a carrion-eating fowl or quadruped, and thus its corpse would never be seen by human eyes. Sad indeed it is to think of the numberless ways in which birds meet "the last enemy."

Be it far from me to use caustic speech against any man or set of men; but it makes me both indignant and sick at heart to read the bloody chronicles of most of the so-called "collectors." How many embryo birds they slay merely to gratify their morbid craze for gathering "clutches," as they suggestively call a set of eggs! Not long ago a collector narrated, in an ornithological journal, the harrowing story of his having rifled the nest of a hairy woodpecker five or six times in a single season, the poor bird laying a new deposit after each burglary, until at last she grew suspicious and sought a safer site for her nest. The writer described his part of the performance with apparent gusto, as if he had made a splendid contribution to science! If he must have a collection of hairy woodpecker's eggs, why not take a single "clutch," and then leave the bird to make her second deposit and rear her brood in peace?

To my mind, many "professionals" shoot a score of birds where they ought to shoot but one. The long record of slaughtered birds is sickening. The

Newgate Calendar scarcely furnishes a parallel. Even our most scientific journals print many of these bloody annals. It is true, a reasonable number of specimens must be collected for scientific purposes, but surely no adequate excuse can be given for shooting hundreds of individuals of the same species merely to have the honor of saying that an astounding number of specimens were "taken." If the cause of natural history cannot be promoted without destroying the humane instincts of the naturalist himself, the price is too great; it were better left unpaid. A bird in the bush is worth forty in the hand, especially if the forty are dead; worth more, too, I venture to add, to the cause of science itself.

XVI.

THE SECRET OF APPRECIATION.

It is simply being en rapport with the object or truth to be appreciated. No more patent fact was ever declared than that which Saint Paul wrote: "Spiritual things are spiritually discerned." There must be mental kinship, or there cannot be true valuation. Bring a depressed or distracted mind to the most exhilarating service, and you will miss its pith and point, and go away unrewarded.

The same truth obtains in our commerce with Nature, which, it would seem, will not brook a rival in our hearts if we would win from her all her treasured sweets. "Give me your whole mind, your whole attention," she says, "or I will close up every fountain of refreshment." What benefit will that man whose mind is absorbed in the affairs of the market derive from a woodland stroll? What secret will

the rustling leaves speak to him, or the opening flowers, or the chirping birds? He sees no transit of swift wings, and the sunshine dapples the leaf-carpeted ground in vain for eyes that see only the ledger and day-book in the sylvan haunt.

My own experience confirms the foregoing statements. For several months one summer I felt depressed and abstracted on account of several untoward circumstances which need not be described, for "every heart knoweth its own bitterness." In this mood I sometimes sauntered out to my woodland haunts; but I saw very little, and what I did see bore the stamp of triteness, and seemed as dull and languid as myself. My heart was otherwhere. A secret, gnawing grief draws the thoughts inward, and breaks the spell of the outer world, charm she never so sweetly. The soul hopelessly hungering for the unattainable comes almost to despise the blessings within its grasp. A-lack-a-day, that anything should ever come between the heart and its gentle mistress, Nature! And so it was that even the birds, my precious intimates, became a weariness both to the flesh and the spirit.

Master Chickadee was nothing but a lump of flesh covered with mezzo-tinted feathers, all prose, no poetry; a creature that I had once invested with a rare charm (in my own mind), but now only a lout of a bird, a buffoon, whose noisy chatter broke harshly into my gloomy meditations. Once I had fairly revelled in the army of kaleidoscopic warblers, and had called them to their faces all kinds of endearing

names, like a lover wooing a bride; but now, in my dejected frame of mind, they were prosaic enough, and provokingly shy, and I felt too indifferent even to ogle them with my glass as they tilted in the treetops. What a humdrum life was the life of the birds, anyway, and how indescribably humdrum my semi-frequent beat in the woods was becoming!

But by and by, in the autumn, an event occurred that transformed my inner world, dispelling the darkness, dissipating the clouds, bathing all in sunshine. Then I hied to the fields and woods, and, behold, a metamorphosis! The inner miracle had wrought an outer wonder. Never was there "such mutual recognition vaguely sweet" between the autumn woods and my appreciative heart. ground, flecked with sunshine, filtering through the browning leaves, became a work of mosaic fit for a king to tread on, and the westerly breeze sang a pæan through the branches. And how many birds there were! A flock of robins were chirping in the grove, now and then breaking into song, as if they had forgotten that spring was past and that it was unconventional for robin redbreast to sing in the autumn; but they seemed to be willing to make a breach of the convenances to give me delight.

Numerous warblers chirped in the tree-tops, or swung out on the upbuoying air to catch some ill-fated insect on the wing; and although I could not identify many of them, I felt no annoyance, as I had at other times, for I could truly "rejoice with those that do rejoice," because I had no sorrow of my

own to distract my mind. I could have forgiven almost any trick a bird had seen fit to play me. The brown creeper, just from his haunt in some primeval forest of British America, went hitching up a tree-bole in his own quaint way without even the courtesy of a friendly how-d'-you-do; but I forgave the slight, and told him he was a poet, — there was rhythm in every movement, and his feathers rhymed each with its fellow.

Across the breezy hills to the river valley I made my way in lightsome mood, finding birds a-plenty wherever I went. More than once the song-sparrows broke into their autumnal twitter, aftermath of their springtime choruses when they were in full tone; and occasionally the Carolina wren uttered his stirring reveille, which, though perhaps not tuneful in itself, seemed tuneful to me that day, because there was music in my own mind. When you are in the right mood, even the distant caw of the crow or the plaintive cry of the blue jay sets the harp of your soul to melody; while the riotous piping of the cardinal grossbeak makes you feel as if you were "married to immortal verse."

But, alas! when "loathed melancholy, of Cerberus and blackest midnight born," is your unbidden companion, every overture of Nature is a burden, an intrusion into the privacy of your grief, and—

"Vainly morning spreads her lure Of a sky serene and pure."

In a leaf-strewn arcade beneath the overarching bushes hard by the river, were the merry juncos, my companions of the winter, which had come back from their summer vacation in the north. glad I was to salute them and welcome them home! Their trig little forms, sprightly motions, confident air of comradery, and merry trills were a joy to me. And then I could not help wondering if any of them might be the same birds I had met during the early summer on one of the green mountains of Canada, where I had spent a day of rapturous delight. In the same sequestered angle, autumn though it was, the phæbe bird brought back reminiscences of spring, with his cheery whistle; while farther down the valley his shy relative, the wood-pewee, complained dulcetly that winter was coming to drive him from his pleasant summer haunts. sound, whether joyful or sad, struck a responding chord in my heart, because Nature had my undivided thought.

When the mind is distracted by sorrows it cannot shake off, it boots little that the chirp of the chestnut-sided and cerulean warblers is sharp and penetrating; that the call of the black-throated green, black-throated blue and myrtle warblers is somewhat harsh; that the Maryland yellow-throat expresses his alarm or disapproval in a note still lower in the scale and quite rasping; that the Black-burnian and parula warblers tilt about far up in the tree-tops, as if they scorned the ground; that the black-throats and creepers dance airily about in the bushes or lower branches of the trees, come confidingly near you, a tiny interrogation point dangling

from every eyelash, ask you what you are about, what you do when you are at home, whether you have just come from the hospital that you look so pale, and, having decided that you are a harmless monomaniac, to say the worst, go about their playful toil of capturing insects, apparently unmindful of your presence. But when your heart is jolly and full of nature love, all these simple facts, proving the large diversity of temperament in bird-land's denizens, are a source of joy to you; you note them, are glad on account of them, though you scarcely know why.

In a quiet retreat just beyond a steep-graded railway-track the black-throated green warblers were very abundant and unusually rollicksome. It was strange how they could dash about in the thorn-trees without impaling themselves on the terrible spears. One little fellow swung out of a tree after a miller, which dropped upon a fence-post near by. Why did the natty bird act so queerly? He danced about on the top of the post, tried to pick up something, but was baffled in all his efforts; then he scudded around the post a few inches below the top like a nuthatch, uttering his harsh little chirp. At length I stepped up, determined to solve the enigma. There was the solution; the miller had wriggled into a deep hole in the post, so that the bird could not reach it. With a slender stick I drew it out of its hiding-place, and placed it on the top of the post; but whether the bird ever went back and profited by my well-meant helpfulness I do not know. Begging

the poor miller's pardon, I felt happy in befriending the charming fairy of a bird. With gladness throbbing in every corpuscle, it was not in my place to question Nature's economy in making the sacrifice of one life necessary to the sustenance of another.

Tramping on, I presently found myself in a marsh stretching back from the river-bank. As I stood in the tangle of tall grass and weeds, listening to the songs and twitters of various birds, the sentiment, if not the precise lines, of Lowell, came to mind like a draught of invigorating air,—

"Dear marshes! vain to him the gift of sight
Who cannot in their various incomes share,
From every season drawn, of shade and light,
Who sees in them but levels brown and bare.
Each change of storm or sunshine scatters free
On them its largess of variety,
For Nature with cheap means still works her wonders
rare."

But what was that sharp chirp? It instantly drew my thoughts from the marsh itself and the poet's tribute. Opera-glass in hand, I softly stole near the bushy clump from which the sound came. Ah! there the bird was, tilting uneasily on a slender twig. The swamp-sparrow! It was the first time I had positively identified this bird in my own neighborhood, — not, I suppose, because it had not been present often and again, but because I had been too dull of sight to see it. Then came a glad memory. I recalled the peculiar circumstances under which I had seen my first swamp-sparrow, hundreds of miles

away. During a visit to Boston and vicinity, a year prior, I spent a never-to-be-forgotten afternoon with Bradford Torrey, who needs no introduction to intelligent readers. We walked out to some of his favorite haunts. It was an ideal October day, and the charming New England landscape threw a spell over me that gave me a kind of other-worldly feeling. My companion was all I had expected him to be, and more, — a good talker and an appreciative listener, — and even now, when I recall my saunter with this quiet, gentle bird-lover, it seems more like a dream than a reality.

The afternoon had slipped well by when we came to a bush-fringed brook and Mr. Torrey told me that there were swamp-sparrows in the thickets. "How much I should like to see one!" I cried. "The swamp-sparrow is a stranger to me." "You shall have your wish gratified," he replied; and forthwith he climbed the fence, stalked to the other side of the stream, and slowly, gently drove the chirping sparrows toward me, so that I could see their markings plainly with my glass. How lovingly I ogled them! I could not get my fill of the birds shown me by one whom I had loved so long at a distance. It was an epoch in my poor life, — an epoch in a double sense. Who will censure my feeling of gratified pride? In the evening, after our stroll, as we walked to and fro on the platform at the railwaystation waiting for the train to start, I remarked: "Mr. Torrey, I shall never forget my first meeting with the swamp-sparrow."

"No," he responded innocently, as if my humble remembrance would confer an honor upon him; "whenever you see that bird hereafter, you will think of me, won't you?" I told him I should; and that evening in the marsh, a year later, I kept my tryst with memory, while tears, half sad, half glad, dimmed my eyes.

But hark! A little farther on, from the sparse bushes of a grassy bank, came the swinging treble of a white-throated sparrow, like a votive offering. What enchantment possessed the birds that evening? Had Orpheus with his miracle-working harp come back to earth? I was half tempted to believe for the nonce in the transmigration of souls, for the notes drifted so sadly sweet on the still air, as if the fabled minstrel had indeed returned to mundane realms. Among the thick clusters of weeds and bushes that fringed a railway, which I pursued in my homeward walk, many birds were going to roost,—sparrows, warblers, red-winged blackbirds, and cardinal grossbeaks. My passing along alarmed them, and sent them dashing from their leafy couches.

Thus the afternoon passed. I had not, perhaps, learned as many new things about my kinsmen in plumes as on many other rambles, but I had discovered the secret of appreciation; that the mind must be unharassed by carking care or depressing sorrow to win the best from Nature. Give me a lightsome heart, and I will trudge with any pedestrian. Give me a heavy heart, and the weight clings to the soles of my feet like barnacles to a ship's bottom.

Given the proper mood, the lines of an American poet — no need to mention his name — have the ring of gospel truth, —

"Nature, the supplement of man, His hidden sense interpret can; What friend to friend cannot convey Shall the dumb bird instructed say."

XVII.

BROWSINGS IN OTHER FIELDS.

WEN the most home-loving body may sometimes gain refreshment, and at the same time have his mental vision broadened, by a jaunt to another neighborhood; and if he has a hobby, he may beguile the days in riding it, and thus evade, for a time at least, that most harrowing of all maladies, homesickness. Well, to make a long story short, and a dull one a little brighter, let me say at once that I have, more or less recently, made several visits to various points of interest, and everywhere have found delightful comradeship with the birds. First, I shall speak of a trip to Montreal, that gem city on the St. Lawrence, beautiful for situation as well as for other attractive features.

South of the city a mountain rears its green, symmetrical mass. True, it is not very lofty as mountains go; but standing there alone in the midst of a far stretching plain, it seems really majestic, especially to one unused to great altitudes. It is a favorite pleasure-resort for residents and visitors, having been converted into a beautiful park, with winding paths and driveways, many shady nooks, with comfortable benches to lounge on, and a tower

on the summit, from which you can look down upon a scene that is really enchanting. Nestling at the foot of the mountain is the city, with its towers, steeples, well-laid streets, and palatial residences; curving and gleaming far to the northeast and southwest is the mighty St. Lawrence, its green banks holding it in loving embrace far as the eye can reach; in another direction you trace the Ottawa River meandering far to the northwest like a ribbon of silver, and dividing into two branches a few miles away, thus forming the island of Montreal; beyond the St. Lawrence is the Lake of Two Mountains, and far away in the misty distance toward the south and southwest, are the blue outlines of the Green and Adirondack ranges; in other directions the plain stretches level until it melts in the hazy distance, and is dotted with farm-houses, villages, well-cultivated fields, and green woodlands.

One afternoon a few unoccupied hours were at my disposal. I determined to spend them on Mount Royal, as the eminence is called. A car wheels you up an inclined plane, almost perpendicular near the top, at least two-thirds of the way to the summit. Having filled myself with the scene from the tower, I was starting off to make a tour of the park, when my footsteps were arrested by a quaint new song coming from a clump of trees farther down the declivity. Interest in everything else vanished in a moment. A good deal of time was spent before I could get a sight of the minstrel. Much to my surprise, he turned out to be a thrush;

the species, however, could not be determined at the time for lack of my opera-glass, as the bird was perched rather high in a tree. In the brief time at my disposal just then, I saw a number of other birds, and resolved to spend a day on the mountain studying them, as soon as other duties would permit.

That day came in good time. An early morning hour found me skirting the steep sides of the mountain, alert for feathered dwellers. It was the tenth of July, too late for the best songs and for finding birds in the nest, and yet I felt fairly well satisfied with the results of the day's excursion. Presently the song of the thrush, whose identity I had come to settle, was heard in the copse. A look at him with my glass proved him to be the veery, or Wilson's thrush, only a migrant in my State, and one that pursues his pilgrimage both to the north and south in patience-trying silence.

To my ear the song was sweet, almost hauntingly so. Some notes were quite like certain strains of the wood-thrush's rich song, but others seemed more ringing and bell-like, and the whole tune was more skilfully and smoothly rendered, — that is, with less labored effort. Still, I am loath to say that the general effect of this bird's song is more pleasing than that of the wood-thrush, for there is something far-away and dreamy about the minstrelsy of the latter that one does not hear in the song of any other species.

The veeries evidently had nests or younglings among the bushes, for they called in harsh, alarmed

tones as I entered their secluded haunts, but I had not the good fortune to find a nest. Indeed, it was too late to discover any nests at all, except such as had been deserted. But, to my great delight, I found that the jolly juncos breed on the mountain, for there they were carrying food to their little ones, which had left the nursery and were ensconced in the thick foliage. These birds are winter residents in my own neighborhood, but in the spring they hie to this and other localities of the same and higher latitudes to spend the summer. It was refreshing to meet my little winter intimates. They were quite lyrical, but their little trills did not seem any more tuneful here in their breeding-haunts than in their winter residences, especially when Spring pours her subtle essence into their veins.

Nothing surprised me more than to find songsparrows on the top of the mountain, whereas they are usually the tenants of the swamps and other lowlands in my neighborhood. Here they were rearing families on the mountain's crest as well as along the streams that laved the mountain's base. They also sang their tinkling roundels in both places, sometimes ringing them out so loudly that they could be distinctly heard above the clatter of the street cars.

At one place, in a cluster of half-dead trees and saplings, a colony of warblers were tilting about; all of them only migrants about my home in Ohio, but breeding here. There were old and young creeping warblers, the elders singing their trills in lively fashion, and the young ones twittering coax-

ingly for food. Here were also a number of redstarts, — sonnets in black and gold, — the young beseeching their parents constantly for more luncheon. A beautiful chestnut-sided warbler wheeled into sight and reeled off his jolly little trill, and then gave his half-grown baby a tidbit from his beak. On another part of the mountain the song of a black-throated green warbler fell pensively on the ear, coming from the thick branches of a tall tree, like a requiem from a broken heart. Presently he flitted down into plain view, his curiosity drawing him toward his auditor sitting beneath on the grass. No doubt his mate was crouched on her nest far up in one of the trees.

In a thicket on the acclivity of the mountain, I heard a loud, appealing call, which was new to me; and yet it evidently came from the throat of a young bird pleading for its dinner. By dint of a good deal of peering about and patient waiting, I at length found it to be a juvenile chestnut-sided warbler. Lying on the ground beneath the green canopy of the bushes, I watched it a long time, hoping to see the old bird feed it; but she was too shy to come near, aithough the youngster grew almost desperate in its entreaties. An old nest in the crotch of a sapling near at hand announced where the little fellow had, no doubt, been hatched. It was a beautiful nest, as compactly built as the cottage of a goldfinch, and was decorated, like a red-eyed vireo's nest, with tiny balls of spider-web and strips of paper.

Not far away from this charmed spot a red-eyed

vireo had hung her basket to the horizontal fork of a small swaying branch. It was still fresh, and in such good condition as to convince me that it had just been completed by the little basket-maker, which had not yet deposited her dainty eggs in the cup. No other bird on the mountain sang as much as this vireo, with the sharp red eyes and golden breast. On the whole, I doubt not that Mount Royal would be an almost ideal place for bird study, if one could spend the month of June on its wooded summit, slopes, and acclivities.

The next visit to be described was made to the somewhat celebrated Zoölogical Garden at Cincinnati, Ohio, which contains a really magnificent collection of animals and birds. However, a description of the latter must suffice, although the animals interested me almost as deeply. There are many cages and aviaries containing rare species of feathered folk, the only difficulty being that they are not so thoroughly labelled as they might be for the convenience of visitors, many of whom are sufficiently interested to want to know at least the common names of the birds. All curators and superintendents of such institutions should recognize the importance of complete and systematic labelling of the specimens in their care.

The first aviary at which I stopped consisted of a collection of bright-hued and sweet-toned birds, most of them foreigners. Here one could revel in variety; for there were crimson-eared waxbills from West Africa, black-headed finches from India, cut-throat finches and other dainty folk from across the sea, with indigo-birds, nonpareils, goldfinches, and song-sparrows from our own land. Of these, the nonpareils, or painted finches, were the most gifted singers, having loud, clear voices that rang far above the voices of their fellow-prisoners. No birds make daintier pets than these pretty creatures, with their delicate blue and red costumes. The next best singer in this collection was the American goldfinch, which was not far behind the nonpareil, and really excelled him in one respect, — that is, his song was more prolonged and varied.

The next collection was certainly a parti-hued one, containing cardinal grossbeaks, Brazilian cardinals, crow blackbirds, towhee buntings, brown thrashers, and English blackbirds. I had the pleasure of hearing the song of the Brazilian cardinal. It was quite fine, but scarcely comparable with the rich, full-toned, and varied whistle of our cardinal-bird, being much less vigorous, slower in movement, and feebler in tone. It was gratifying to be able to give the palm to our North American songster.

But of all the clatter of bird music and bird noise combined that I have ever heard in my life, the song of the English starling bore off the bays. Never before had I listened to such divers sounds from a bird's throat, nor had I even fancied that they were possible. Small wonder a well-trained starling costs from twenty to forty dollars at the bird stores! No description can do justice to the

starling's song. He begins in a low, subdued tone, and seems at first to be quite calm; but gradually he grows excited, his body quivers and sways from side to side, his neck is craned out, his throat expands and contracts convulsively, and, oh! oh! oh! — pardon the exclamations — the hurly-burly that gurgles and ripples and bubbles and pours from his windpipe! At one point a double sound is produced, or two sounds nearly at the same moment, — one low and guttural, the other on a higher key, — presently a half-dozen notes rush forth pell-mell, accompanied by a quick snapping of the mandibles; then a succession of loud, musical, explosive notes fall on the ear; and finally the bird, as if in a spasm of ecstasy, opens his mouth wide and utters a clear, rapturous trill as a sort of musical peroration. It is simply wonderful. At first the bird seems to control the song, but erelong the song seems to master the bird completely. To my mind, it seemed that the songster in the intervals of silence had wound up his music-box, and then, having got started, was unable to stop until the spring had run down. Some of the notes of the strain were quite melodious, while others were rather grating.

But what was that silvery song, rising above all the other clangor of music? It was the trill of my peerless little friend, the white-throated sparrow, which I have met so often in my own woodland trysts. Were I to award the prize to any bird in the whole Zoo for sweetness of tone, it would certainly be given to this matchless minstrel. No other

bird's voice had such a purely musical quality; and he sang just as loudly and sweetly as he does in his native copse, bringing back the memory of many a pleasant woodland ramble.

A beautiful family group next claimed attention. It comprised two adult silver pheasants, a male and female, and two little chicks recently from the shell, which had been hatched in the Zoo. They looked like downy chickens, and were about as large. There was no hint of the long, gorgeous plumes that their papa bore so proudly; nothing but brownish, slightly checkered down made up their suits. When their mamma pecked at something on the ground, they would scamper to her for it, as you have seen small chickens do. Unlike most young birds, they picked up their food themselves, and did not pry open their mouths to be fed.

Had you seen the birds I next stopped to ogle, you would have joined in my merriment; for they were the great kingfishers of Australia. What heavy bills they carried, looking like good-sized clubs! One of them pounded his beak against his perch until it fairly rattled with the concussion. When I tapped lightly against the wires, they stretched out their necks, and hissed at me out of their huge mouths.

Nothing was more pleasing than a large wired house containing a dozen or more blue jays. Rain was falling gently at the time, and the refreshing drops filtered upon the birds through the wire roof. How they enjoyed their bath as they flitted from

perch to perch! But the rain did not descend rapidly enough for several of them; and so, in order to drench their plumage more thoroughly, they plunged into the leafy bushes growing in their apartment, and crept about over and through the sprinkled foliage until their feathers were well rinsed.

An interesting bird was the yellow-headed black-bird, which is a resident of some of our Western States, but which does not deign even to visit my neighborhood. His whole head and neck are brilliant yellow, as if he had plunged up to his shoulders in a keg of yellow paint, while the rest of his attire is shiny black. He utters a loud, shrill whistle, quite unlike any sound produced by his kinsmen, the crow blackbird and the red-wing. He seemed to feel quite at home in his cage with several other species of birds.

Many a time I have thought I heard a tumult of bird song in the fields or woods, but at the Zoo I was greeted with a perfect din from the throats of more than two dozen indigo-birds, all singing simultaneously. They simply drowned out every other sound in the neighborhood when they chimed in the chorus. Even the goldfinch, doing his level best, could not be heard until there was a lull in the shriller music. In the same enclosure were the bluebirds and robins. My pity went out to one of the robins, which was trying to build a nest, but could not find a proper site nor the right kind of material. She would pick up a bunch of fibres and strings from the ground, fling them on the window-

sill, and then squat down upon them to press them into the desired concave with her red bosom; but it was all to no purpose, for she had no mortar with which to rear the walls of a cottage.

Leaving the robin to her fruitless labors, I turned to a collection of weaver-birds of various species and divers markings. There was one, especially, with a black head and neck and yellow body, that attracted notice. He was rather handsome; his song, however, was a perfect squall, especially the closing notes. These birds did not sing all the time, but intermittently, one of them beginning with a few ringing notes as a prelude, and then the others joining, all screaming louder and louder as the chorus went on, until they ended in a supreme racket. Then there were a few moments of quiet, followed by the united chorus as before, making such a tumult that one voice could scarcely be distinguished from another. A dainty little sparrow, unnamed, seemed to fill in the intervals with his chirpings, forming a sort of semi-musical interlude.

The enclosure which contained the yellow-headed blackbird was divided into a number of apartments. Here were parrots of various species, among them a number of white-throated Amazons. You have doubtless heard a dozen or more parrots screaming simultaneously. On my visit these birds created a terrible hubbub. They cried and laughed and sighed and groaned and shrieked until my ears were almost deafened. But in the midst of it all, when there was a slight lull, could be heard the silvery

trill of a white-throated sparrow, sounding like the music of an angel amid a tumult of imps.

Near the centre of the garden there is a long pond enclosed by wire fencing, and on and about this pond is to be found an interesting group of water-fowls. There was a large bluish-colored crane with a ruff of feathers about his head. A workman came along and snapped his fingers at the bird, which hopped and leaped about and almost turned a somersault. A great blue heron had made a nest of sticks and twigs on the bare bank of the pond, and was sitting on two eggs. While I was watching her, she rose slowly on her long stilts, stretched out her stiffened wings, rearranged the sticks with her bill, and then sat down on her eggs again, turning them under her breast. What an opportunity for a bird student if day by day he could have watched her build her nest and rear her young!

Swimming about on the pond like a couple of feathered craft were two great white pelicans with long bills and elevated wings. A tuft of feathers or bristles grew on the top of their upper mandibles. They seemed to be guying each other, or probably were engaged in a real naval battle; for they pursued each other around and around, engaged in various martial movements and counter-movements, and every now and then clashed together their great beaks like two men fencing with swords. But they avoided close contact. How lightly and smoothly they glided about on the water!

Standing on a platform on the other side of the

pond, were two more large, almost gigantic pelicans, not of the same species as the two just mentioned, having no tufts on their beaks, but a large featherless spot on the side of their heads encircling the eye. There they stood, silently preening their plumes, dexterously drawing each snowy feather between their mandibles. How long they had been making their toilet I cannot say. Presently the first two pelicans came sailing over to the platform, and climbed awkwardly upon it. Would there be a pitched battle between them and the other two birds? One of the latter stretched forth his neck, and, to my great surprise, puffed out a large membranous bag or pouch at his throat like that of a frog, and uttered a warning cry. But soon the quartette of feathered Goliaths settled down into quiet, and adjusted their plumes without the least interference with one another's comfort.

Following a winding pathway, I presently reached an apartment which contained sixteen great horned owls, sitting in a row and looking as wise as Greek sages. It was amusing to see them expand their eyes and stare through the blinding light, then blink, close one eye and dilate the other, and then shut both so nearly that only narrow chinks were visible between the lids. Several of them opened their small, human-like mouths, and hissed at me softly whenever I stirred. In another part of the ground there was a collection of barn owls, with faces that looked very intelligent; but the birds seemed to be quite wild, glaring with their black

eyes and swaying their heads from side to side in a nervous, irritable way.

I felt many times repaid for my saunter through the Zoo, and would advise all who have an opportunity of visiting a good zoölogical garden not to let it go by unimproved. A great deal of information as well as pleasure may be thus gained.

Wherever one is, one must get people to talking about one's mania. How else could it be said that there is method in one's madness, or in what respects it differs from mere lunacy? While visiting with a delightful family living in a city some distance from my home, our conversation drifted perhaps with a good deal of calculation on my part — to the birds, with the result that I was put in possession of several facts worth noting, chiefly because they prove how helpful some birds are to one another in their domestic relations. No birds are more ingenious in planning for one another's comfort and safety than our "foreign brethren," the English sparrows. The mistress of this intelligent family, a woman who has keen eyes and ears for the birds, declared that she always heard one sparrow in the trees about the house waking up its sleeping mates at break of day, like the father of a family rousing his drowsing children. It called in shrill tones as if it were saying, "Wake up! wake up! Day is coming! Time to go to work!" As it continued its clamor, it seemed to be flying about from one point to another, visiting every bedroom, until at length a faint peep was heard here

and there in response from various members of the sparrow household, and erelong the entire company was awake. When my friend told me this story, I was considerably surprised, not to say a little skeptical. But, remaining in their home over night, I had an opportunity to confirm the story, for I was myself awakened in the morning by the loud, impatient calls of a sparrow rousing his family; and the process took place just as my informants had described it, leaving no longer any room for doubt.

The same kind friends described another cunning freak of bird behavior. A lady's bedroom window opened near some bushy trees, in which a pair of birds - perhaps robins - had built a nest. At night the lady would often hear the male singing. But sometimes he would grow drowsy, and would become silent, - he had evidently got to napping, - when there would be a coaxing, complaining Pe-e-e-p! pe-e-e-p! from the little wife on the nest, evidently asking him to "sing some more." Then he would tune his pipe again until his throat got tired and his eyelids heavy. In this way the exacting wife kept her spouse serenading her for a large part of the night. Perhaps, like children, she could not sleep unless some one was singing to her. At all events, it was very bright of her to demand a lullaby or love-song from her husband to put her to sleep.

The conduct of many kinds of birds in the autumn while preparing for their Hegira to the

south is extremely interesting. They assemble in flocks, sometimes large enough to suggest an ecumenical council, and fall to cackling, twittering, discussing, and in many other ways making preparation for their aerial voyage to another clime. They really seem to regret being compelled to leave their pleasant summer haunts, if one may judge from the length and fervor of their goodbyes. Perhaps they are like human beings who have a strong attachment for home, and must visit every nook and tryst to say au revoir before they take their departure. One can easily imagine how dear to their hearts are the scenes of their childhood, and of their nest-building and brood-rearing.

No birds make a greater to-do over their leavetaking in the autumn than the house martins. I once visited for a few days with some friends who live in the country and have had a bevy of martins in their boxes for many years. They described the behavior of these birds when fall comes. At a certain date in September they will gather in a compact flock, sing and whistle and chatter at the top of their voices, circle about the premises, alighting on the trees, fences, and buildings, and then will rise in the air and sail away through the blue ether. Strange to say, they may return in a day or two, and repeat their evolutions; and this may be done several times before they say adieu and begin their southward pilgrimage in real earnest. Why do they do this? One might well rack one's brain in vain conjectures. Do they lose their way the

first time? Or do they get a bad start, and then come back to try again? Or do they get homesick after they have gone some distance, and return once more to look upon the familiar scenes? It would be difficult to sift all the processes of bird cerebration.

XVIII.

A BIRD ANTHOLOGY FROM LOWELL.1

In making a study of Lowell's poetry for a special purpose, one cannot help admiring the genius with which he transmutes every theme he touches into gold. His Muse is exceedingly versatile, ranging at her own sweet will over a wide and varied field. There may be times when you are not in the mood for smiling at his humor or weeping at his pathos; but his delineations of Nature are always so true, so musical, so picturesque, that they seldom fail to strike a responsive chord in the breasts of those readers who are not

"Aliens among the birds and brooks,
Dull to interpret or conceive
What gospels lost the woods retrieve."

No other American poet seems to get quite so near to Nature's throbbing heart. Dream though he sometimes may, he seldom loses his hold on the world of reality. Nature in her own garb is beauti-

¹ This article, under the title of "Lowell and the Birds," was first published in the "New England Magazine," for November, 1891, shortly after the poet's death. Copyright credit is here given to the publisher of that magazine.

ful enough for him, and does not need the garnishing and drapery of an over-fanciful interpretation. It is not my purpose, however, to eulogize Lowell's poetry, even his poetry of Nature, in a general way, or attempt an analysis of it, but simply to call attention to his metrical descriptions of the feathered creation. Among all our American poets, he is the limner par excellence of bird ways. It is true that Emerson is somewhat rich in allusions to our feathered denizens, and especially felicitous in his characterizations; but his references are briefer, more casual, and far less frequent than those of Lowell, who takes toll of them, one might almost say, without stint; for he says of himself,—

"My heart, I cannot still it, Nest that has song-birds in it."

Lowell never speaks of the birds in a stereotyped way, as many poets do, but mentions them by name, and often describes their behavior with a deftness and accuracy of touch that fairly enchant the specialist in bird lore. Having given no little attention to the study of birds, I feel prepared to say that Lowell's hand is almost always sure when he undertakes to depict the manners of the "feathered republic of the groves." I have found, I think, only one technical inaccuracy in all his numerous allusions; ¹ and I believe I may say, without boasting,

¹ The one noted in the chapter on "The Wood-Pewee." As the poem on this bird is quoted in that article, it has been purposely omitted from this collection of passages.

that I am familiar with every bird whose charms he has chanted. Indeed, he himself boasts modestly, as poets may, of his familiarity with the birds in his beautiful tribute to George William Curtis, saying,—

"I learned all weather-signs of day and night; No bird but I could name him by his flight."

In the first place, let me point out the remarkable felicity of his more general references to birds and their ways. The music of the minstrels of the air often fills his bosom with pleasing but half-regretful reminders of other and happier days, as, for example, when he penned those exquisite lines, "To Perdita, Singing,"—

"She sits and sings,
With folded wings
And white arms crost,
"Weep not for bygone things,
They are not lost.""

Then follow some lines of rare sweetness, the concluding ones of which are these,—

"Every look and every word
Which thou givest forth to-day,
Tells of the singing of the bird
Whose music stilled thy boyish play."

A similar pensive reference is found in our poet's ode, "To the Dandelion," which is as deserving of admiration as many of the more famous odes of English poesy. He thus apostrophizes "the common flower" that fringes "the dusty road with harmless gold,"—

"My childhood's earliest thoughts are linked with thee;
The sight of thee calls back the robin's song,
Who, from the dark old tree
Beside the door, sang clearly all day long;
And I, secure in childish piety,
Listened as if I heard an angel sing
With news from heaven, which he could bring
Fresh every day to my untainted ears,
When birds and flowers and I were happy peers."

A bird often affords our poet a metaphor or a simile by which to represent some sad reminiscence of his life. Listen to this sweet minor strain,—

"As a twig trembles, which a bird
Lights on to sing, then leaves unbent,
So is my memory thrilled and stirred;
I only know she came and went."

With what a plaintive melody the last line lingers in one's mind, like some far-off melancholy strain, singing itself over again and again with a persistency that will not be hushed, — "I only know she came and went." There are times, too, when our bard falls into a slightly despondent mood, and even then the birds serve to give a turn to his pensive reflections, —

"But each day brings less summer cheer, Crimps more our ineffectual spring, And something earlier every year Our singing birds take wing."

To my mind, he is less attractive when his verse takes on this cheerless hue, and I therefore turn gladly to his more jubilant lays, in which he seems to have caught the joy of the full-toned bird orchestra, as he does at more than one place in "The Vision of Sir Launfal," —

"The little birds sang as if it were
The one day of summer in all the year,
And the very leaves seemed to sing on the trees."

What bird lover has not often been caught in such a mesh of bird song, on a bright day of the early springtime? Even good-natured Hosea Biglow cannot always repress his enthusiasm for the birds, although he is quite too chary of his allusions to them, — that is, too chary for the man who has birds on the brain. His unsophisticated sincerity cannot brook a perfunctory treatment of Nature's blithe minstrels, for he breaks out scornfully in denouncing those book-read poets who get "wut they've airly read" so "worked into their heart an' head" that they

"... can't seem to write but jest on sheers With furrin countries or played-out ideers.

This makes 'em talk o' daisies, larks, an' things, Ez though we'd nothin' here that blows an' sings. Why, I'd give more for one live bobolink Than a square mile o' larks in printer's ink!"

Hosea, in spite of the meagreness of his allusions to bird life, still proves beyond a doubt that he is conversant with the migratory habits of the birds, and that he has been watching a little impatiently for their vernal appearance in his native fields and woods, as every bird student who reads the following lines will testify,—

"The birds are here, for all the season's late;
They take the sun's height, an' don' never wait;
Soon'z he officially declares it's spring,
Their light hearts lift'em on a north'ard wing,
An' th' ain't an acre, fur ez you can hear,
Can't by the music tell the time o' year."

Sometimes a single line or phrase proclaims our poet's loving familiarity with the feathered world, and gives his verse an outdoor flavor that positively puts a tonic into the appreciative reader's veins, almost driving him out beneath the shining vault of the sky; as when the poet refers to "the cock's shrill trump that tells of scattered corn;" or to "the thin-winged swallow skating on the air;" or laments because "snowflakes fledge the summer's nest;" or remarks incidentally that the "cat-bird croons in the lilac-bush; " or that "the robin sings, as of old, from the limb;" or that "the single crow a single caw lets fall;" or asks, "Is a thrush gurgling from the brake?" How vivid and full of woodsy suggestion are the following lines from that captivating poem, "Al Fresco": -

> "The only hammer that I hear Is wielded by the woodpecker, The single noisy calling his In all our leaf-hid Sybaris."

Nothing could be more characteristic of wood-peckerdom than that quatrain. Still more rhythmical are the first six lines—a metrical sextette that sing themselves—of the poem entitled "The Fountain of Youth,"—

"'T is a woodland enchanted!

By no sadder spirit

Than blackbirds and thrushes,

That whistle to cheer it

All day in the bushes,

This woodland is haunted."

And what a picture for the fancy is limned in the following lines:—

"Like rainbow-feathered birds that bloom A moment on some autumn bough, That, with the spurn of their farewell, Sheds its last leaves!"

A flashlight view that, of one of the rarest scenes in Nature. The poet must have bent over more than one callow brood of nestlings, or he never could have written so knowingly about them,—

"Blind nestlings, unafraid, Stretch up wide-mouthed to every shade By which their downy dream is stirred, Taking it for the mother bird;"

for such is the unsuspicious habit of most bantlings in the nest. It would be difficult to find a defter touch than that with which Lowell describes a resplendent morning, "omnipotent with sunshine," whose "quick charm . . . wiled the bluebird to his whiff of song,"

"While aloof
An oriole clattered and a robin shrilled,
Denouncing me an alien and a thief;"

particularly if it is borne in mind that the allusion is to the chattering alarm-call of the oriole and the robin. Exquisite indeed is the description of—

"The bluebird shifting his light load of song From post to post along the cheerless fence;

while it would puzzle one to find anywhere a more poetical and at the same time realistic portrayal than this,—

"Far distant sounds the hidden chickadee Close at my side," —

especially if the reference be to the little black-capped titmouse's minor whistle, which has a strange, sad remoteness when heard in the sylvan depth, reminding one of the myth of Orpheus mourning for his lost love. No less vivid are the lines,—

"The phœbe scarce whistles Once an hour to his fellow;"

or these, -

"O'erhead the balanced hen-hawk slides, Twinned in the river's heaven below;"

or this description of a winter scene, —

"I stood and watched by the window
The noiseless work of the sky,
And the sudden flurries of snow-birds
Like brown leaves whirling by."

Hark! —

"All pleasant winds from south and west
With lullables thine ears beguiled,
Rocking thee in thine oriole's nest,
Till Nature looked at thee and smiled."

Listen again! —

"The sobered robin, hunger-silent now, Seeks cedar-berries blue, his autumn cheer." If one were only there to see: —

"High flaps in sparkling blue the far-heard crow,
The silvered flats gleam frostily below;
Suddenly drops the gull, and breaks the glassy tide."

Of course even the casual observer has often been aware of the fact that "the robin is plastering his house hard by;" and many of us may have looked upon a winter scene like the following, but I am sure we never thought of painting it in just such tropical colors,—

"The river was numb, and could not speak,
For the weaver Winter its shroud had spun;
A single crow on the tree-top bleak
From his shining feathers shed off the cold sun."

Hosea Biglow seems to think he knows where to find

"Some blooms that make the season suit the mind, An' seem to match the doubting bluebird's notes,"

liverworts and bloodroots being among those talismanic plants. There is a world of serenity in the following metrical etching, which makes one almost long to die and be forever at rest:—

"Happy their end
Who vanish down life's evening stream
Placid as swans that drift in dream
Round the next river-bend."

Our poet had the charming habit of making some characteristic bird-way do deft metaphorical duty in his verse, like the skilful weaver who runs a line of exquisite tint through his weft. Here is an instance, found in the poem called "Threnodia,"—

"I loved to see the infant soul

Peep timidly from out its nest,
His lips, the while,
Fluttering with half-fledged words,
Or hushing to a smile
That more than words expressed,
When his glad mother on him stole
And snatched him to her breast!
O, thoughts were brooding in those eyes,
That would have soared like strong-winged birds
Far, far into the skies,
Gladding the earth with song
And gushing harmonies."

Here is another fine simile, —

"As if a lark should suddenly drop dead
While the blue air yet trembled with its song,
So snapped at once that music's golden thread."

In the following stanzas on "The Falcon"—used as a metaphor for Truth—there is a captivating multiplicity of figures,—

"I know a falcon swift and peerless
As e'er was cradled in the pine;
No bird had ever eye so fearless,
Or wing so strong as this of mine.

"The winds not better love to pilot
A cloud with molten gold o'errun,
Than him, a little burning islet,
A star above the coming sun.

"For with a lark's heart he doth tower,

By a glorious upward instinct drawn;

No bee nestles deeper in the flower

Than he in the bursting rose of dawn."

It almost throws one into "a midsummer night's dream" to read this picturesque line,—

"The clouds like swans drift down the streaming atmosphere."

That must have been an expressive face indeed whose features were

"As full of motion as a nest
That palpitates with unfledged birds,"

albeit one may be permitted to hope, without irreverence, that it made a more attractive picture than did the callow youngsters gaping and wabbling in their nursery. But here is a delineation of bird life so graphically and richly colored that one longs for the brush of the artist to transfer it to canvas. Listen! listen! There is an exhilarant in the atmosphere.

"The little bird sits at his door in the sun,
Atilt like a blossom among the leaves,
And lets his illumined being o'errun
With the deluge of summer it receives;
His mate feels the eggs beneath her wings,
And the heart in her dumb breast flutters and sings;
He sings to the wide world, and she to her nest,—
In the nice ear of Nature which song is the best?"

The last two lines, by the way, are in perfect keeping with Mr. Lowell's generous instincts, which were always on the side of the lowly and unappreciated.

Seductive as the figure is, there seems to be something slightly forced in the poet's conceit that the thrushes sing because they have been "pierced through with June's delicious sting," unless it might be justified on the principle that pain and trial often enhance moral values.

There is a beautiful stanza in the poem, "On Planting a Tree at Inverara,"—

"Hither the busy birds shall flutter,
With the light timber for their nests,
And, pausing from their labor, utter
The morning sunshine in their breasts."

With all his poet's soul Lowell loved the serene, as when he congratulates himself on having left the grating noise and stifling smoke of London, and found in some sequestered haunt

"Air and quiet too;
Air filtered through the beech and oak;
Quiet by nothing harsher broke
Than wood-dove's meditative coo."

The word "meditative" is extremely felicitous, but no more so than the hop-skip-and-spring of the following lines from a Commencement dinner poem:—

"I've a notion, I think, of a good dinner speech,
Tripping light as a sandpiper over the beach,
Swerving this way and that, as the wave of the moment
Washes out its slight trace with a dash of whim's foam on 't,
And leaving on memory's rim just a sense
Something graceful had gone by, a live present tense;
Not poetry,—no, not quite that, but as good,
A kind of winged prose that could fly if it would."

Like all discriminating lovers of "Nature's blithe commoners," Lowell had his favorites, whose praises he frequently rung with a sincerity that cannot be doubted for a moment. He was especially partial to the bobolink. He must have often peeped into the

"Tussocks that house blithe Bob o' Lincoln,"

or his Muse would not have been so adept and faithful in her hymning descriptions. We will lend a listening ear while she sings her chansons on the virtues of the bird our poet loved so truly. First, I will call attention to the following portraiture of that cavalier of the meadow, the male bobolink, at the season when there are bantlings in the grass-domed nest which demand his paternal care, as well as that of his faithful spouse,—

"Meanwhile that devil-may-care, the bobolink,
Remembering duty, in mid-quaver stops
Just ere he sweeps o'er rapture's tremulous brink,
And 'twixt the windrows most demurely drops,
A decorous bird of business, who provides
For his brown mate and fledgelings six besides,
And looks from right to left, a farmer 'mid his crops."

One can almost see the poet leaning against the rail fence of the clover field, with pencil in hand, drawing the portrait of the bird which is posing unconsciously before him, so true is his delineation of bobolink life. But to find Lowell at his best you must read his description of Robert o' Lincoln at his best. Hark!—

"A week ago the sparrow was divine;
The bluebird, shifting his light load of song
From post to post along the cheerless fence,
Was as a rhymer ere the poet come;
But now, oh, rapture! sunshine winged and voiced,
Pipe blown through by the warm, wild breath of the West,
Shepherding his soft droves of fleecy cloud,
Gladness of woods, skies, waters, all in one,
The bobolink has come, and, like the soul
Of the sweet season, vocal in a bird,
Gurgles in ecstasy we know not what,
Save June! Dear June! Now God be praised for June."

The only fault to be found with this exquisite tribute is that it is rather too much involved to glide melodiously from the lips, or be quite clear to the mind until after a second or third reading. Not so picturesque, but more simple and musical, is this bit,—

"From blossom-clouded orchards, far away
The bobolink tinkled."

The provincial tongue of Hosea Biglow presents us with the following rare bit of portraiture, which has all the strength and freshness of a painting from Nature:—

"June's bridesman, poet o' the year,
Gladness on wings, the bobolink is here;
Half-hid in tip-top apple-bloom he sings,
Or climbs against the breeze with quiverin' wings,
Or, givin' way to 't in mock despair,
Runs down, a brook o' laughter, thro' the air,"—

a rhythmical tribute that is both an honor to the poet and a compliment to the bobolink.

The Baltimore oriole also claims Mr. Lowell's admiration. There is one descriptive passage relative to this bird that, in my opinion, goes ahead of even the famous bobolink eulogy just quoted:

"Hush! 'T is he! My oriole, my glance of summer fire, Is come at last, and, ever on the watch, Twitches the pack-thread I had lightly wound About the bough to help his housekeeping, — Twitches and scouts by turns, blessing his luck, Yet fearing me who laid it in his way, Nor, more than wiser we in our affairs, Divines the providence that hides and helps. Heave, ho! Heave, ho! he whistles as the twine Slackens its hold; once more, now! and a flash Lightens across the sunlight to the elm Where his mate dangles at her cup of felt. Nor all his booty is the thread; he trails My loosened thought with it along the air, And I must follow, would I ever find The inward rhyme to all this wealth of life."

The last sentence is a deft turn at weaving, oriole-like, a thread of moral reflection into a fine piece of description. Even in his later years Lowell could not throw off the spell that this summer flake of gold had thrown over him; for in his volume called "Heartsease and Rue" he has inserted a little poem entitled "The Nest" that for rhythmical flow and beauty has not been excelled by any of his earlier productions. He first describes the nest in May as follows:—

"Then from the honeysuckle gray
The oriole with experienced quest

Twitches the fibrous bark away,

The cordage of his hammock nest,

Cheering his labor with a note

Rich as the orange of his throat.

"High o'er the loud and dusty road
The soft gray cup in safety swings,
To brim ere August with its load
Of downy breasts and throbbing wings,
O'er which the friendly elm-tree heaves
An emerald roof with sculptured leaves.

Thy duty, wingëd flame of Spring, Is but to love and fly and sing."

Then he chants a pathetic "palinode," as he calls it, in December, when

"... homeless winds complain along The columned choir once thrilled with song.

"And thou, dear nest, whence joy and praise
The thankful oriole used to pour,
Swing'st empty while the north winds chase
Their snowy swarms from Labrador.
But, loyal to the happy past,
I love thee still for what thou wast."

Besides the bobolink and the oriole, the blackbird is often made to do charming duty in Lowell's verse. Every student of the birds has often seen the picture described by the line,—

"Alders the creaking red-wings sink on;" or heard

"... the blackbirds clatt'rin' in tall trees An' settlin' things in windy Congresses,— Queer politicians, though, for I'll be skinned Ef all on 'em don't head against the wind." A number of quotations in which the robin figures conspicuously have already been given. One more occurs to me, — that in which Hosea Biglow exclaims, —

"Thet's robin-redbreast's almanick; he knows That arter this ther''s only blossom-snows; So, choosin' out a handy crotch an' spouse, He goes to plast'rin' his adobë house."

But hold! here is still another: —

"The Maple puts her corals on in May,
While loitering frosts about the lowlands cling,
To be in tune with what the robins sing,
Plastering new log-huts 'mid her branches gray."

It can scarcely be hoped to make this anthology from Lowell exhaustive, for almost every time I turn the leaves of his poetical works I stumble upon some reference to the birds before unnoted; but this article would be incomplete should one of his choicest bits of metrical description, which must bring both anthology and book to a close, be omitted. It is found in the poem entitled "The Nightingale in the Study," the whole of which must be read to catch the drift of its moral teaching. The poet doubtless attributes more magnanimity to the cat-bird than that carolist is entitled to, — but no matter; the Muses cannot be over-precise. Here is a charmer: —

"'Come forth!' my cat-bird calls to me,
'And hear me sing a cavatina
That, in this old familiar tree,
Shall hang a garden of Alcina.

"'Or, if to me you will not hark,
By Beaver Brook a thrush is ringing
Till all the alder-coverts dark
Seem sunshine-dappled with his singing.

"'Come out beneath the unmastered sky,
With its emancipating spaces,
And learn to sing as well as I,
Without premeditated graces.

"'Come out! with me the oriole cries,

Escape the demon that pursues you!

And hark! the cuckoo weatherwise,

Still hiding, farther onward wooes you.'"

But this time, for a wonder, the poet declines the invitation to go out of doors, because, as he says, "a bird is singing in my brain;" and yet he does so with evident regret, for he exclaims, in response to the cat-bird's plea,—

"'Alas, dear friend, that, all my days,
Has poured from that syringa thicket
The quaintly discontinuous lays
To which I hold a season ticket,—

"' A season ticket cheaply bought
With a dessert of pilfered berries,
And who so oft my love has caught
With morn and evening voluntaries,

"'Deem me not faithless, if all day
Among my dusty books I linger,
No pipe, like thee, for June to play
With fancy-led, half-conscious finger.

"'A bird is singing in my brain,
And bubbling o'er with mingled fancies,
Gay, tragic, rapt, right heart of Spain
Fed with the sap of old romances;'"

and so for once the poet of the birds cannot be lured from his study, where he has been caught in the west of old Moorish and Castilian legends, and he concludes his apology with the only slighting allusion in all his verses, so far as I have discovered, to his beloved winged minstrels:—

"'Bird of to-day, thy songs are stale

To his, my singer of all weathers,

My Calderon, my nightingale,

My Arab soul in Spanish feathers.

"' Ah, friend, these singers dead so long, And still, God knows, in purgatory, Give its best sweetness to all song, To Nature's self her better glory.'"

Thus the Lowell anthology has swollen to a veritable anthem, and gives to this modest volume a peroration that it can never hope to deserve.



APPENDIX.

MY BIRD LIST.

THE following is an alphabetical list of the birds which I have seen in my neighborhood, Springfield, Clark County, Ohio. It is given for the convenience of bird students, who are always interested in the *locale* of the feathered tribe. The small figure (1) indicates residents all the year round; (2), summer residents; (3), winter residents; (4), migrants.

Bittern, American.²
Blackbird, red-winged.²
Bluebird ² (occasionally winter resident).
Bobolink.²
Bob-white.¹
Bunting, black - throated;
Dickcissel.²
Butcher-bird.⁴
Buzzard, turkey.²

Cat-bird.²
Cedar-bird.⁴
Chat, yellow-breasted.²
Chickadee, black-capped.¹
Cow-bird.²
Creeper, brown.³
Crow.¹
Cuckoo, black-billed.²
yellow-billed.²

Dickcissel.²
Dove, turtle or mourning.¹
Duck, wood.²
Finch, purple.⁴
Flicker.¹
Flycatcher, Acadian.⁴
crested.²
least.⁴

Gnatcatcher, blue-gray.⁴
Goldfinch, American.¹
Grass-finch.²
Grossbeak, cardinal.¹
rose-beasted.⁴
Grouse, ruffed.¹

yellow-bellied.4

Traill's.4

Hawk, red-shouldered.³ sharp-shinned.³

Hawk, sparrow.¹
Heron, great blue.²
green.²
Humming-bird, rubythroated.²

Indigo-bird.2

Jay, blue.²
Junco; snowbird.³

Killdeer.²
Kingbird.²
Kingfisher, belted.²
Kinglet, golden-crowned.³
ruby-crowned.⁴

Lark, horned or shore.³ meadow.²

Martin, purple.2

Night-hawk.² Nuthatch, white-breasted.¹ red-breasted.⁴

Oriole, Baltimore.² orchard.² Oven bird.² Owl, screech.¹

Pewee, wood.² Phœbe; house pewee.² Pipit, American.³

Redstart.⁴
Robin ² (sometimes in winter).

Sandpiper, spotted.² Sapsucker, yellow-bellied.⁴

Shrike, loggerhead.4 Sparrow, chipping.² English.1 field.2 fox.4 grasshopper.2 lark.4 Savanna.4 song.1 swamp.4 tree.3 white-crowned.4 white-throated.4 Swallow, bank.² barn.2 cliff or cave. white-bellied or tree.2 Swift, chimney.²

Tanager, scarlet.²
Titmouse, tufted.¹
Thrasher, brown.²
Thrush, hermit.⁴
Wilson's or veery.⁴
wood.²
Towhee; chewink.²

Vireo, blue-headed.⁴
red-eyed.²
warbling.²
white-eyed.⁴
yellow-throated.⁴

Warbler, bay-breasted.⁴
black and white.⁴
Blackburnian ⁴
black-poll.⁴
black-throated blue.⁴
black-throated green.⁴
blue-winged.⁴

Warbler, Canadian.4 cerulean.4 chestnut-sided.4 Connecticut.4 golden-winged.4 hooded.4 Kirtland's.4 magnolia.4 Maryland yellowthroat.2 mourning.4 myrtle.4 Nashville.4 palm or red-poll.4 Tennessee.4 Wilson's; green black-capped.4

Warbler, worm-eating.4 yellow or summer.2 Water-thrush.4 Louisiana.4 Whippoorwill.² Woodpecker, downy.1 golden-winged; flicker.1 hairy.1 red-bellied; zebra-bird.3 red-headed.2 yellow-bellied.4 Wren, Bewick's.² Carolina.1 house.2 short-billed marsh.4 winter.4



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